

29 Selkirk Street

TIA Strategy Report

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July 7, 2020

477516-01000



TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed¹ or registered² professional in good standing, whose field of expertise [check appropriate field(s)] is either transportation engineering or transportation planning .

1,2 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

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STRATEGY REPORT

1. SCREENING FORM

The Screening Form was prepared for the subject development and included as part of the subsequent report. The screening form confirmed the need for a Transportation Impact Assessment (TIA) based on the Trip Generation Trigger (784 residential units and 30,000 ft² commercial space), the Location Trigger (located in a Design Priority Area and on collector roadways), and the Safety Trigger (proposed driveway is within 150m of signalized intersections and auxiliary turn lanes). The Screening Form is provided in Appendix A.

2. SCOPING REPORT

2.1. EXISTING AND PLANNED CONDITIONS

2.1.1. PROPOSED DEVELOPMENT

This report has been prepared to support a Zoning Bylaw Amendment (ZBLA) for two properties located along the south side of Montreal Road between Montgomery Street and North River Road and along the north side of Selkirk Road. The properties are currently zoned Traditional Mainstreet (TM3) and General Mixed-Use Zone (GM11). The proponent is proposing a mixed-use development comprised of three high-rise residential towers ranging between 22 to 33 storeys in height, composed of 1,003 residential units, 22, 200 ft² of grocery retail, and 7,800 ft² retail space. The development is expected to be constructed in two phases with build-out years 2022 and 2025. Phase 1 is comprised of Tower B (260 residential units) and 5,850 ft² of retail. Phase 2 is comprised of Towers A and C (743 residential units), the grocery retail and remaining 1,950 ft² of retail.

Currently, vehicle parking is proposed in a surface parking structure and underground parking. Approximately 963 parking spaces are provided (803 for residents, 80 commercial parking spaces, and 80 visitor spaces). Bicycle parking is provided in interior storage rooms with approximately 514 spaces proposed for residential and commercial use. As this development is at the ZBLA stage, these numbers are subject to change and may be revised during Site Plan Approval (SPA). The site's local context is depicted as Figure 1 and the proposed site plan as Figure 2.

Figure 1: Local Context



DRAFT



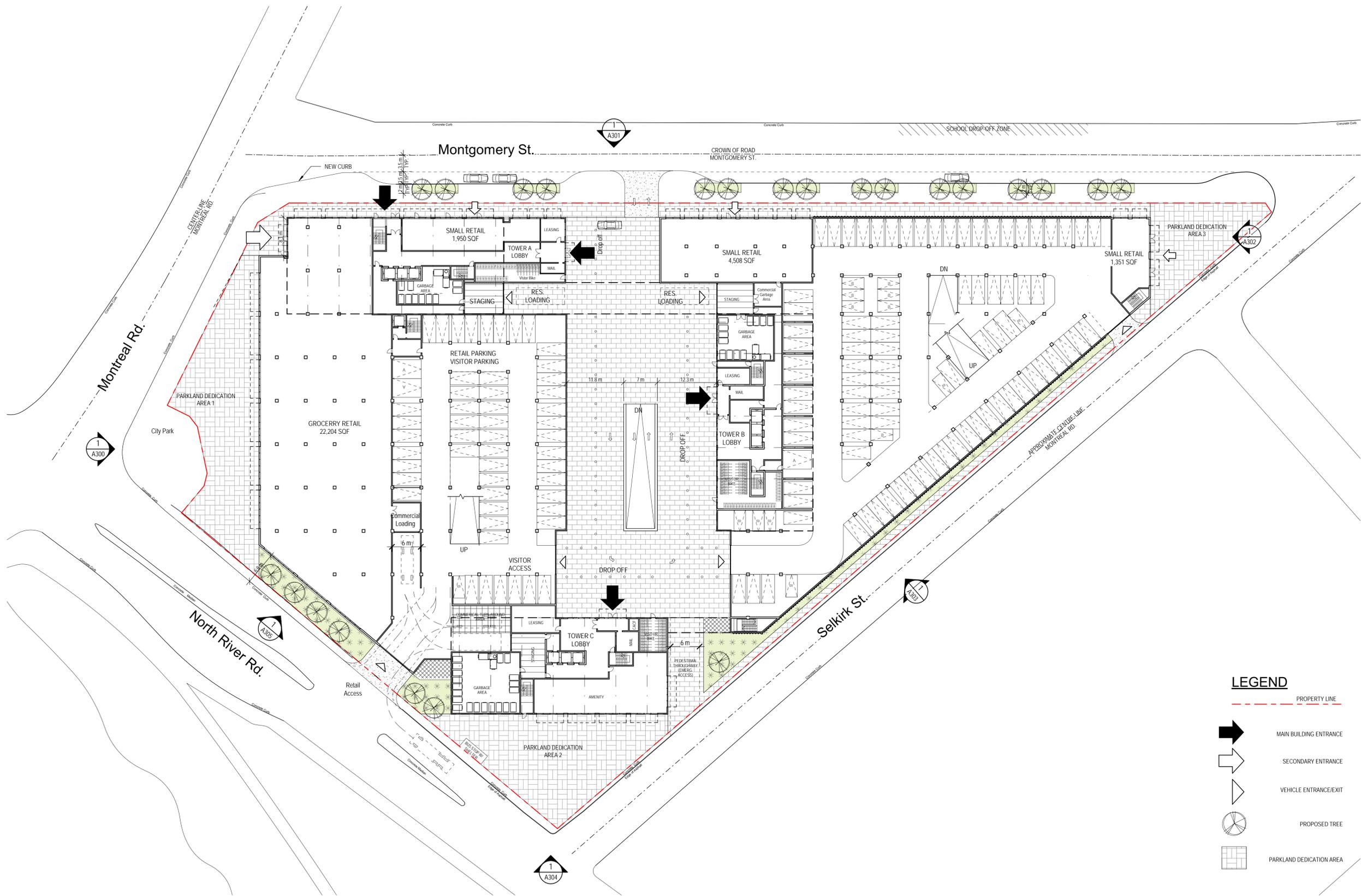
Professional Seals

NOT FOR CONSTRUCTION

No.	Description	Date
1	Issued for Rezoning	2020-06-15

LEGEND

- PROPERTY LINE
- MAIN BUILDING ENTRANCE
- SECONDARY ENTRANCE
- VEHICLE ENTRANCE/EXIT
- PROPOSED TREE
- PARKLAND DEDICATION AREA



1 LEVEL 1 PLAN
1 : 400

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Project No:
Sheet Title
GROUND PLAN

Original drawing is A1. Do not scale contents of this drawing.
Sheet Number

A202

2.1.2. EXISTING CONDITIONS

Area Road Network

Montreal Road is an east-west arterial roadway with a 4-lane cross-section and auxiliary turn lanes at major intersections. It extends from North River Road in the west to HWY-174 in the east. Beyond North River Road, Montreal Road continues as Rideau Street, and beyond HWY-174, it continues as St. Joseph Boulevard. There are currently time-of-day (TOD) curbside bus lanes along Montreal Road from Montgomery Street to St. Laurent Boulevard. Within the study area, there is a westbound curbside bus lane from Vanier Parkway to Montgomery Street during the morning peak period (7:00 – 9:00am). On-street parking is provided along both sides of the roadway. The posted speed limit is 50 km/h.

McArthur Avenue is an east-west arterial roadway with a 2-lane cross-section and auxiliary turn lanes at major intersections. It extends from North River Road in the west to St. Laurent Boulevard in the east. There are painted bike lanes travelling both east and westbound with separation provided in the form of flex posts and occasional concrete medians. On-street parking is provided along the south side of the roadway within the study area. The posted speed limit is 50 km/h.

North River Road is a north-south roadway with a 2-lane cross-section. It extends from Coupal Street in the north to Wright Street in the south. North River Road is classified as an arterial roadway between Montreal Road and McArthur Avenue. Between McArthur Avenue and Donald Street it is classified as a collector roadway and north of Montreal Road and south of Donald Street it is classified as a local street. Within the study area, the posted speed limit is 50 km/h.

Vanier Parkway is a north-south divided arterial roadway with a 4-lane cross-section and auxiliary turn lanes at major intersections. It extends from St. Patrick's Street in the north to Tremblay Road in the south. Beyond St. Patrick's Street, Vanier Parkway continues as Crichton Street, and beyond Tremblay Road, it continues as Riverside Drive. Within the study area, the posted speed limit is 60 km/h.

Selkirk Street is an east-west local roadway with a two-lane cross-section that extends from North River Road in the west to Gardner Street in the east. West of Dundas Street, Selkirk Street operates as a one-way eastbound street and east of Dundas Street it operates as two-way. On-street parking is provided, and the unposted speed limit is understood to be 50 km/h.

Montgomery Street is a north-south local roadway with a two-lane cross-section that extends from Montreal Road in the north to Gardner Street in the south. On-street parking is provided, and the unposted speed limit is understood to be 50 km/h.

Dundas Street is a north-south local roadway with a two-lane cross-section that extends from Selkirk Street in the north to McArthur Avenue in the south. On-street parking is provided, and the unposted speed limit is understood to be 50 km/h.

Mayfield Street is a one-way south local roadway with a one-lane cross-section that extends from Montgomery Street in the north to McArthur Avenue in the south. On-street parking is provided, and the unposted speed limit is understood to be 50 km/h.

Existing Study Area Intersections

North River/Montreal

The North River/Montreal intersection is a signalized four-legged intersection. The northbound approach consists of a left-turn lane, a through lane, and a right turn lane. The southbound approach consists of a shared all-movement lane. The eastbound approach consists of a shared through/left-turn lane and shared through/right-turn lane. The westbound approach consists of a through lane and a shared through/right-turn lane. The eastbound left-turn is prohibited during the morning and afternoon peak periods, the eastbound right-turn-on-red is prohibited, and the westbound left-turn is prohibited.



Montgomery/Montreal

The Montgomery/Montreal intersection is a signalized 'T' intersection. The northbound approach consists of an auxiliary left-turn lane and a shared through/right-turn lane. The eastbound approach consists of shared through/left-turn lane and a through lane. The westbound approach consists of a through lane and a shared through/right-turn lane. All movements are permitted at this location.



Vanier/Montreal

The Vanier/Montreal intersection is a signalized four-legged intersection. The north and southbound approaches consist of an auxiliary left-turn lane, three through lanes, and a channelized right-turn lane. The eastbound approach consists of an auxiliary left-turn lane, a through lane, and a shared through/right-turn lane. The westbound approach consists of an auxiliary left-turn lane, two through lanes and a channelized right-turn lane. All movements are permitted at this location.



North River/McArthur

The North River/McArthur intersection is a signalized four-legged intersection. The north, south, and eastbound approaches consist of a shared all-movement lane. The westbound approach consists of a shared through/left-turn lane and an auxiliary right-turn lane. All movements are permitted at this location.



Vanier/McArthur

The Vanier/McArthur intersection is a signalized four-legged intersection. The north and southbound approaches consist of an auxiliary left-turn lane, two through lanes, and a channelized right-turn lane. The eastbound approach consists of an auxiliary left-turn lane, a through lane, and a channelized right turn lane. The westbound approach consists of dual left-turn lanes, a through lane, and a right-turn lane. All movements are permitted at this location.



Dundas/McArthur

The Dundas/McArthur intersection is a 'T' intersection with STOP control on Dundas Street. The southbound approach consists of a shared left-turn/right-turn lane. The eastbound approach consists of shared through/left-turn lane. The westbound approach consists of a shared through/right-turn lane. All movements are permitted at this location.



Mayfield/McArthur

The Mayfield/McArthur intersection is a 'T' intersection with STOP control on Mayfield Street. The southbound approach consists of a shared left-turn/right-turn lane. The east and westbound approaches consist of a through lanes only, as Mayfield Street is a one-way southbound only road.



Selkirk/North River

The Selkirk/North River intersection is a 'T' intersection with STOP control on Selkirk Street. The northbound approach consists of a shared through/right-turn lane. The southbound approach consists of a through lane. The westbound approach consists of a left-turn lane and a right-turn lane. The southbound left-turn movement is prohibited as Selkirk Street is one-way westbound.



Selkirk/Dundas

The Selkirk/Dundas intersection is a 'T' intersection with STOP control on Dundas Street. The northbound approach consists of a shared all movement lane. The westbound approach consists of shared through/left-turn lane. There is no eastbound approach as Selkirk Street is one-way westbound west of Dundas Street.



Selkirk/Montgomery

The Selkirk/Montgomery intersection is a four-legged intersection with STOP control on Selkirk Street. The southbound approach consists of a shared left-turn/right-turn lane. The eastbound approach consists of shared through/left-turn lane. The westbound approach consists of a shared through/right-turn lane. All movements are permitted at this location.



Mayfield/Montgomery

The Mayfield/Montgomery intersection is an unsignalized 'T' intersection. The eastbound approach consists of shared through/left-turn lane. The westbound approach consists of a shared through/right-turn lane. There is no northbound approach as Mayfield is one-way only (southbound).



Existing Driveways to Adjacent Developments

Figure 3: Existing Driveways



Along the site's four frontage roadways, there are the following existing driveways (Figure 3):

- Montreal Road between North River Road and Montgomery Street, north side: none
- North River Road between Montreal Road and Selkirk Street, west side: none
- Selkirk Street between North River Road and Montgomery Street, south side: 2 private driveways
- Montgomery Street between Montreal Road and Selkirk Street, west side: 4 public driveways and 2 private driveways

Existing Area Traffic Management Measures

Existing area traffic management measures within the study area include zebra crosswalks, textured crosswalks, sidewalks, curb-side bike lanes, and on-street parking.

Pedestrian/Cycling Network

According to the City’s 2013 Official Cycling Plan (OCP), North River Road and Montreal Road are designated “Spine” Routes. Immediately adjacent to the site, no formal cycling facilities are currently provided or planned along either street and therefore cyclists operate in mixed traffic. However, there is a multi-use pathway (MUP) on North River Road north of the site that continues south along the Rideau River. Additionally, there are painted bike lanes along McArthur Avenue with separation provided in the form of flex posts and occasional concrete medians. The existing cycling facilities are shown in Figure 4.

Curbside sidewalks are provided on both sides along North River Road, Montreal Road, McArthur Avenue, and Vanier Parkway. They are also provided on the south side of Selkirk Street, east side of Montgomery Street, and west side of Dundas Street.

Figure 4: Existing Cycling Facilities



Transit Network

OC Transpo service is currently located along Montreal Road and North River Road with bus stops provided near the site for Frequent Routes #12 and #14 and Local Route #18. Figure 5 illustrates the area transit network and Figure 6 illustrates adjacent transit stops.

Figure 5: Area Transit Network



Figure 6: Adjacent Transit Stops



Peak Hour Travel Demand

The existing peak hour traffic volumes and pedestrian/cyclist volumes within the study area, obtained from the City of Ottawa, are illustrated in Figure 7 and Figure 8, respectively. It should be noted that the activity at study area intersections, with the exception of the North River/Site intersection, reflects winter conditions, and therefore are not considered representative of peak conditions for cyclists and pedestrians. For example, usage of the MUP located on the west side of North River Road would be notably higher in the warmer months, and therefore it is reasonable to expect higher crossing volumes of Montreal Road by pedestrians/cyclists at this location (west leg) than the current data indicate. The peak hour traffic volume count data is included as Appendix B. The month and year of available data is as follows:

- North River/Montreal – March 2020
- Montgomery/Montreal – February 2020
- Vanier/Montreal – March 2019
- North River/McArthur – March 2020
- Vanier/McArthur – March 2019
- Dundas/McArthur – November 2019
- Selkirk/North River – November 2019
- North River/Site – May 2018

Please note that due to the COVID-19 crisis and its affect on 'normal' daily traffic, little to no new count data is available for several study area intersections and traffic volumes have been estimated using data from traffic counts at adjacent intersections. The list below represents the intersections with estimated traffic volumes:

- Dundas/Selkirk
- Mayfield/Montgomery
- Mayfield/MacArthur

Figure 7: Existing Peak Hour Traffic Volumes

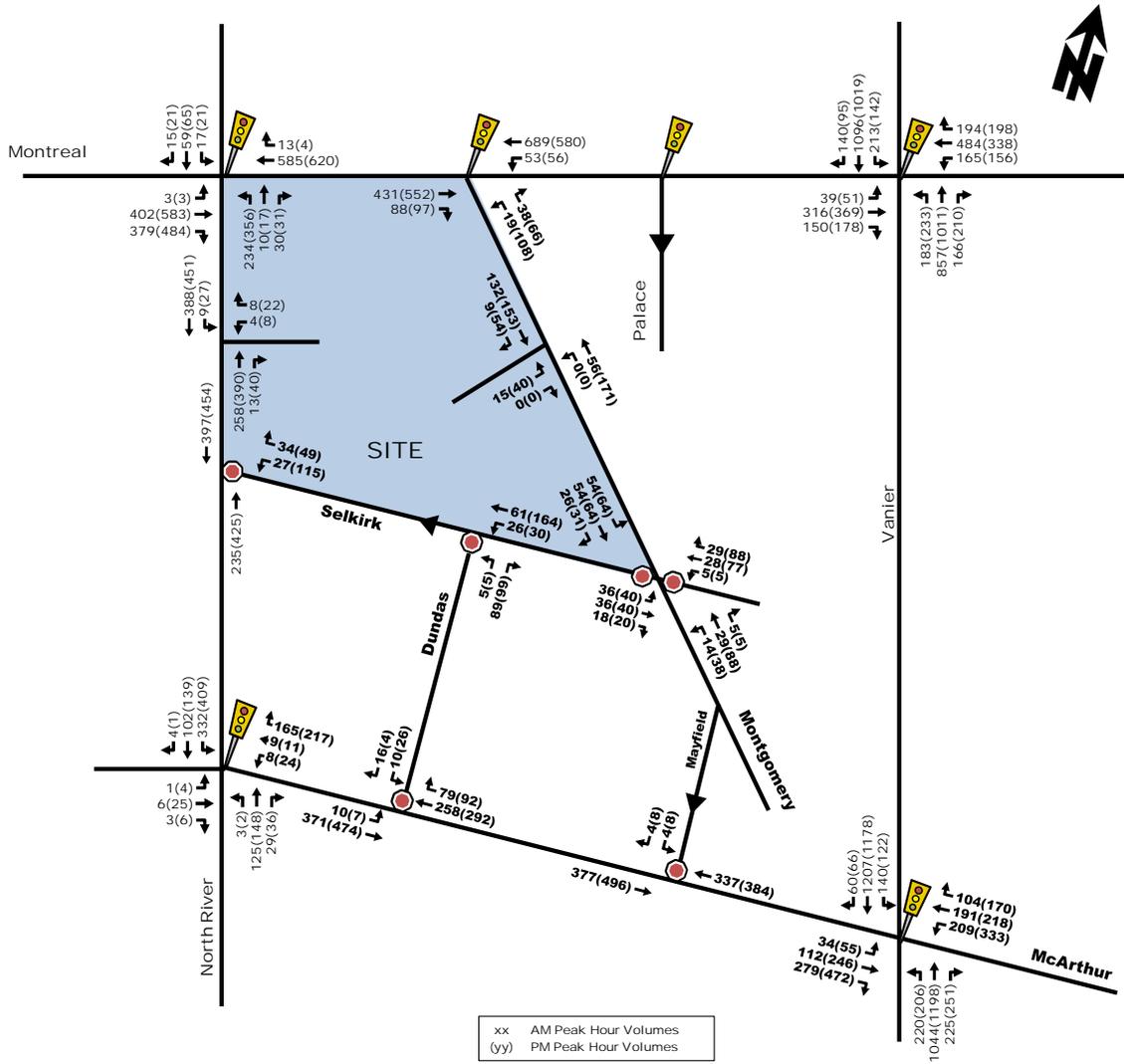
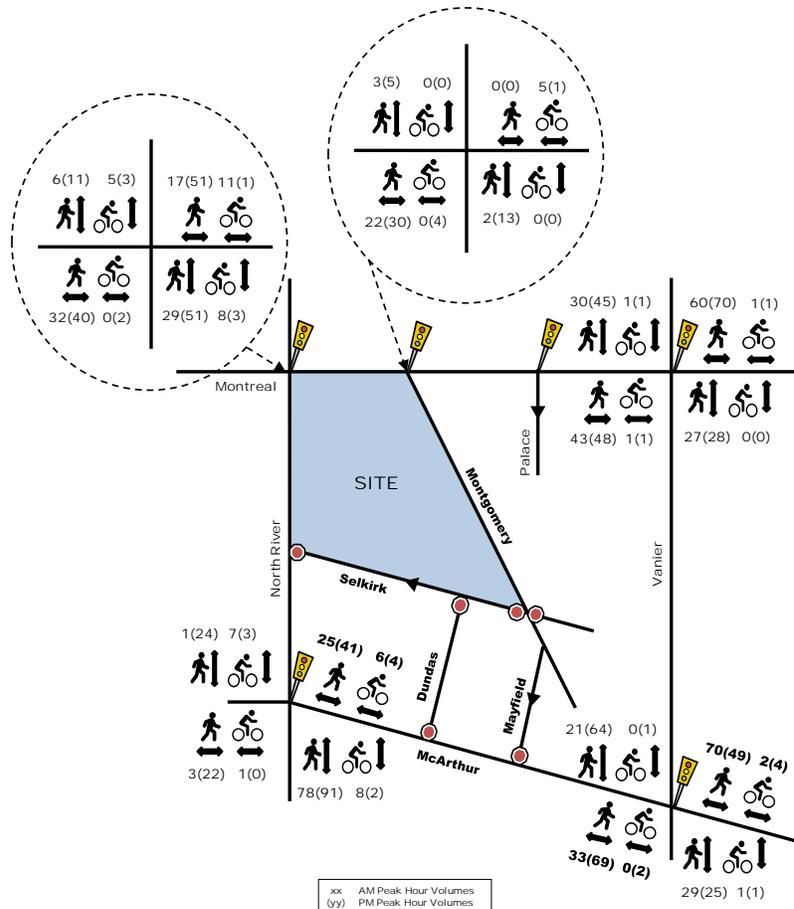


Figure 8: Existing Pedestrian and Cyclist Peak Hour Volumes



Existing Road Safety Conditions

Collision history for the study area intersections (2014 to 2018, inclusive) was obtained from the City of Ottawa and most collisions (80% or 238 collisions) involved only property damage, indicating low impact speeds, and 20% (60 collisions) involved personal injuries. 1 collision involved a fatal injury. The primary causes of collisions cited by police include; rear end 50% (146 collisions), sideswipe (17%, 51 collisions), and turning movement (13%, 38 collisions) type collisions. Note that of the 299 collisions at the study area intersections, 126 of these collisions occurred at the Montreal/Vanier intersection.

A standard unit of measure for assessing collisions at an intersection is based on the number collisions per million entering vehicles (MEV). At intersections within the study area, reported collisions have historically take place at a rate of:

- 0.61/MEV at the McArthur/North River intersection;
- 1.02/MEV at the McArthur/Vanier intersection;
- 1.46/MEV at the Montreal/Vanier intersection;
- 0.45/MEV at the Montreal/Montgomery intersection; and,
- 0.82/MEV at the Montreal/North River intersection.

At the Vanier/Montreal intersection there was a total of 126 collisions in the 5-year period, which equates to approximately 25 collisions per year, on average. The majority of collisions were rear end collisions of vehicles travelling north and southbound. As this section of Vanier Parkway is on a horizontal curve, potential mitigative

measures could include advance flashing lights warning drivers of the need to stop ahead (e.g. on the Airport Parkway northbound, south of Bronson Arena) or signage indicating that they are in a high rear end collision area (e.g. on Hunt Club Road east of the Hunt Club/Riverside intersection). As this is an existing issue, these measures may be considered should a safety review of the Vanier/Montreal intersection be completed by City staff.

Montreal/North River was reviewed as a part of the 263 Greensway development, and it was indicated that the intersection has a potential geometric issue as eastbound vehicles on Cummings Bridge approach the intersection at an angle after a straight 220m-long segment. Posted speed is 50 km/h. It was suggested within the Greensway TIA that the City explore eastbound advanced traffic signal signage on Cummings Bridge, as well as speed enforcement measures to mitigate these issues. Note that there were 12 reported collisions at this intersection during the study period (2014-2018).

It is noteworthy that within the 5-years of recorded collision data there were 15 collisions involving pedestrians and 6 collisions involving cyclists, resulting in non-fatal injuries. Additionally, there was a fatal collision at the McArthur/Vanier intersection which involved two vehicles. Note that 2019 collision data has not been processed by the City of Ottawa at the time of writing this Forecasting Report. The source collision data as provided by the City of Ottawa and related analysis is provided as Appendix C.

2.1.3. PLANNED CONDITIONS

Planned Study Area Transportation Network Changes

Within the study area, notable transportation network changes (excerpt from the 2013 TMP and Ottawa.ca) and are described as follows:

Montreal Road Revitalization

The Montreal Road Corridor has been designated as a complete street and as such, a Functional and Detailed Design has been completed. Project limits for Montreal Road are North River Road to St. Laurent Boulevard (2km), as well as North River Road north of Montreal Road (560m). Elements of the plan include the following:

- Construct a four-lane cross-section between North River Road and Vanier Parkway;
- Construct a three-lane cross-section between Vanier Parkway and St. Laurent Boulevard that includes two westbound lanes, one eastbound lane and cycling tracks/lanes in both directions;
- Implement streetscaping features along Montreal Road including but not limited to new street furniture, streetlights, trees, concrete sidewalks and paver stones;
- Review and improve bus stop and bus shelter locations;
- Replace the existing watermain between North River Road and St. Laurent Boulevard;
- Replace sanitary and storm sewers along certain sections of Montreal Road; and,
- Replacement of the watermain, sanitary sewers and road drainage along the 560m long section of North River Road (north of Montreal Road).

Figure 9 depicts the scope of works within the Montreal Road Revitalization Key Plan.

Figure 9: Montreal Road Revitalization Key Plan



Figure 10 below illustrates the current Landscape Plan along Montreal Road adjacent to the site. The notable changes to the study area roadways and intersections include the following:

- Construction of a bi-directional cross-ride on the west leg of the North River/Montreal intersection;
- Intersection narrowing on the south leg of the North River/Montreal intersection;
 - Currently planned as one southbound receiving lane, one northbound left-turn lane and a shared through/right-turn lane;
- Zebra crosswalks at all signalized intersections;
- Removal of time-of-day bus lanes;
- Cross-rides on all legs of the Vanier/Montreal intersection;
- Lane reassignment travelling eastbound on Montreal Road at the Vanier/Montreal intersection;
 - Currently planned as one left-turn lane, one through lane and one right-turn lane; and,
- Removal of Urban Truck Route designation on North River Road;
 - Trucks are to use Vanier Parkway south to access McArthur Avenue.

Note that cycling facilities are not provided directly on Montreal Road between North River Road and Vanier Parkway. Cycling facilities have been provided in the form of bidirectional cycle tracks directing users one block north to Mark Avenue.

Figure 10: Montreal Road Landscape Roll-Plan – North River Road to Vanier Parkway



Source: <https://ottawa.ca/en/city-hall/public-engagement/projects/montreal-road-revitalization>, accessed July 2, 2020

The following is an excerpt of the anticipated construction schedule as listed on Ottawa.ca:

- 2019 – Burial of overhead hydro power lines and other utility work on Montreal Road between North River Road and L'Église Street.
- 2020 – Continued utility work including hydro burial as well as watermain and sewer construction on Montreal Road and North River Road (Montreal Road to north cul-de-sac). Complete section of Montreal Road between North River Road and the Vanier Parkway.
- 2021 – Continued watermain, sewer and road work on Montreal Road between the Vanier Parkway and St Laurent Boulevard.
- 2022 – Landscape and streetscape work as well as final lift of asphalt pavement on Montreal Road.

Transit

Within the TMP's Affordable Network, transit priority (continuous lanes) are proposed along the Montreal Road between North River Road and Ogilvie Road. They are currently implemented from Montgomery Street to St. Laurent Boulevard. It has been confirmed that the peak period bus lanes will be maintained west of Vanier Parkway. Within the Network Concept Plan, transit priority (isolated measures) are identified along North River Road from Montreal Road to McArthur Avenue and along McArthur Avenue from North River Road to St. Laurent Boulevard.

Other Area Developments

According to the City's development application search tool, the following developments impacting the surrounding transportation network are planned within the vicinity of the subject site. Note that there are additional developments within the study area however these have negligible transportation impacts and have not been included in this report.

263 Greensway Avenue

Manor Park Management is proposing a new 6-storey residential building comprised of 77 apartment units at the above noted address, which is which is located northeast of the subject development. The Transportation Impact Assessment (prepared by Parsons) projected an increase in vehicle traffic of approximately 50 person trips per hour during the morning and afternoon peak hours.

244 Fountain Place

A planned unit development consisting of two low-rise apartment buildings with 22 one-bedroom units is proposed. The site is located where Fountain Place branches off Rideau Street just before the Cummings Bridge. Vehicular access is provided from Fountain Place way of a 3m driveway on the south side of the site. A shared cycle lane is identified on the Cummings Bridge. Given the size and number of units proposed, it is expected that impacts will be negligible on the subject study area.

112 Montreal Road and 314 Gardner Street

2705460 Ontario Inc. is proposing three residential towers comprised of 678 residential units at the above noted address, which is which is located northeast of the subject development. The Transportation Impact Assessment (prepared by CGH Inc.) projected an increase in vehicle traffic of approximately 215 veh/h during the morning and afternoon peak hours.

2.2. STUDY AREA AND TIME PERIODS

Given that the proposed site is primarily residential, the time periods being assessed will be the morning and afternoon peak hours. The estimated build-out dates for the two phases are 2022 and 2025. Additionally, the horizon year 2030 will also be analyzed as the full build-out +5 years horizon. The study area been analyzed is listed below and shown in Figure 11.

Figure 11: Study Area



- North River/Montreal
- Montgomery/Montreal
- Vanier/Montreal
- North River/McArthur
- Vanier/McArthur
- Dundas/McArthur
- Mayfield/McArthur
- Selkirk/North River
- Selkirk/Dundas
- Selkirk/Montgomery
- Mayfield/Montgomery
- Montreal Road between North River Road and Montgomery Street
- North River Road between Montreal Road and Selkirk Street
- Selkirk Street between North River Road and Montgomery Street
- Montgomery Street between Montreal Road and Selkirk Street

2.3. EXEMPTION REVIEW

Based on the City's TIA guidelines and the subject site, the following modules/elements of the TIA process, summarized in Table 1, are recommended to be exempt in the subsequent steps of the TIA process:

Table 1: Exemptions Review Summary

Module	Element	Exemption Consideration
Design Review Component (4.1 – 4.4)	All elements	As this is TIA is for a Zoning Application, the Design Review Component is not required.

3. FORECASTING

3.1. DEVELOPMENT GENERATED TRAVEL DEMAND

Existing Site Trip Generation

Since the Eastview Shopping Centre currently generates trips, it is necessary to assess the current site operations are in order to understand the impacts to the surrounding road network. For purposes of this study, the existing traffic volumes will be approximated using ITE Trip rates and the existing shopping centre floor area, which is assumed to be composed of the following:

- ~ 2,840 m² (30,570 ft²) of retail space;
- ~ 340 m² (3,660 ft²) restaurant area comprised of:
 - ~ 170 m² (1,830 ft²) of fast casual restaurant area (closed during morning peak hour);
 - ~ 170 m² (1,830 ft²) of fast-food restaurant without drive through area;
- ~ 1,570 m² (16,900 ft²) of high turnover (sit down) restaurant area (closed during morning peak hour); and
- ~ 1,250m² (13,455 ft²) of grocery space.

Figure 12, shows the existing shopping centre and the assumed areas. The ITE trip generation rates used for the existing property are shown in Table 2.

Figure 12: Existing Eastview Shopping Centre



Table 2: ITE Trip Generation Rates – Existing Shopping Centre

Land Use	Data Source	Trip Rates	
		AM Peak	PM Peak
Supermarket	ITE 850	$T = 3.82(X)$	$T = 9.24(X)$ $\ln(T) = 0.75\ln(X) + 3.21$
Shopping Centre	ITE 820	$T = 0.94(X)$	$T = 3.81(X)$
High Turnover (Sit Down) Restaurant	ITE 930	N/A (closed AM peak)	$T = 9.77(X)$
Fast-Food Restaurant without Drive Through	ITE 933	$T = 89.03(X) - 157.40$	$T = 28.34(X)$

Note: T = Average Vehicle Trip
 X = 1,000 ft² of Ground Floor Area
 du = dwelling units

As ITE trip generation surveys only record vehicle trips and typically reflect highly suburban locations (with little to no access by travel modes other than private automobiles), adjustment factors appropriate to the Ottawa study area context were applied to attain estimates of person trips for the proposed development. To convert ITE vehicle trip rates to person trips, an auto occupancy factor and a non-auto trip factor were applied to the ITE vehicle trip rates. Our review of available literature suggests that a combined factor of approximately 1.3 is considered reasonable to account for typical North American auto occupancy values of approximately 1.15 and combined transit and non-motorized modal shares of less than 10%. The person trip generation for the existing development is summarized in Table 3.

Table 3: Modified Existing Person Trip Generation – Retail, Restaurant and Grocery

Land Use	Area	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Supermarket	13,455 ft ²	19	47	66	113	110	223
Shopping Centre	30,570 ft ²	22	15	37	22	25	47
High Turnover (Sit Down) Restaurant	18,730 ft ²	0	0	0	145	89	234
Fast-Food Restaurant without Drive Through	1,830 ft ²	12	9	21	35	36	71
Total Existing Person Trips		53	71	124	315	260	575

The person trips shown in Table 3 for the existing developments were then reduced by modal share values. Given the development's location in the Ottawa East area and the site's close proximity to transit facilities available on Montreal Road, the active and transit modal splits are expected to be higher than outlined in the TRANS OD Survey. Table 4 outlines the mode shares for the Ottawa East area and selected mode splits. The resulting mode shares for the existing development are summarized in Table 5.

As the existing development likely generates pass-by trips and multi-purpose trips, pass-by and internalization factors for each land use has been applied. The ITE Trip Generation Handbook 9th Edition averages a 35% pass-by rate for supermarkets and shopping centres and a 45% pass-by rate for high turnover (sit down) restaurants and fast-food restaurants without drive throughs. The handbook suggests an internalization factor of 30 - 50% however to remain conservative, a 15% factor was applied.

Table 4: 2011 OD Survey - Ottawa East Mode Shares

	24 hrs			AM Peak			PM Peak			Average	Selected Split
	From District	To District	Within District	From District	To District	Within District	From District	To District	Within District		
Auto	58	58	43	45	64	33	64	48	43	51	45
Passenger	15	15	15	10	11	13	15	15	16	14	10
Transit	19	20	8	30	19	9	18	27	7	17	30
Bicycle	3	3	3	6	1	3	1	7	3	3	5
Walk	2	2	25	2	1	24	1	2	25	9	10
Other	3	2	6	7	4	18	1	1	6	5	-

Table 5: Total Existing Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	25	35	60	144	120	264
Auto Passenger	10%	7	7	14	34	26	60
Transit	30%	13	19	32	90	74	164
Bicycle	5%	2	2	4	15	13	28
Walk	10%	6	8	14	32	27	59
Total Person Trips	100%	53	71	124	315	260	575
Less Pass-by (35%/45%)		-10	-10	-20	-53	-53	-106
Less Multi-Purpose (15%)		-2	-4	-6	-14	-10	-24
Total Estimated Existing Site Auto Trips		13	21	34	77	57	134

As shown in Table 5 above, the total estimated existing site generated trips are anticipated to be 34 veh/h and 134 veh/h during the morning and afternoon peak hours, respectively.

3.1.1. SITE TRIP GENERATION AND MODE SHARES

Appropriate trip generation rates for the proposed development consisting of approximately 1,003 residential units, 22,200 ft² of grocery retail, and 7,800 ft² retail space was obtained from the City's 2009 TRANS Trip Generation - Residential Trip Rates and ITE's Trip Generation Manual 10th Edition. Phase 1 consists of 260 residential units and 5,850 ft² of retail space. Phase 2 consists of the remaining 743 units, 1,950 ft² of retail space, and 22,200 ft² of grocery retail space. Table 6 summarizes the trip generation rates.

Table 6: Vehicle Trip Rates for Retail and Residential Uses

Land Use	Data Source	Trip Rates	
		AM Peak	PM Peak
High Rise Apartment	TRANS	T = 0.24(du)	T = 0.27(du)
Supermarket	ITE 850	T = 3.82(X)	T = 9.24(X) Ln(T) = 0.75Ln(X) + 3.21
Shopping Centre	ITE 820	T = 0.94(X)	T = 3.81(X)

Note: T = Average Vehicle Trip
X = 1,000 ft² of Ground Floor Area
du = dwelling units

Phase 1 Trip Generation

Commercial Trip Generation

The person trip generation for the Phase 1 retail development is summarized in Table 7 and the mode shares for the retail component is outlined in Table 8 using the modal splits outlined in Table 4.

Table 7: Modified Person Trip Generation – Retail Phase 1

Land Use	Area	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Shopping Centre	5,850 ft ²	4	3	7	13	16	29
Total Phase 1 "New" Person Trips		4	3	7	13	16	29

Table 8: Proposed Retail Modal Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	1	1	2	5	7	12
Auto Passenger	10%	0	0	0	2	1	3
Transit	30%	2	1	3	4	5	9
Bicycle	5%	0	0	0	0	0	0
Walk	10%	1	1	2	2	3	5
Total Person Trips	100%	4	3	7	13	16	29
Less Pass-by (35%)		0	0	0	-2	-2	-4
Less Multi-Purpose (15%)		0	0	0	0	-1	-1
Total 'New' Shopping Centre Auto Trips		1	1	2	3	4	7

Residential Trip Generation

Using the TRANS Trip Generation rates outlined in Table 6 and the TRANS Trip Generation mode splits for the residential component of the site, the total amount of person trips generated by the proposed 260 residential units is summarized in Table 9.

Table 9: Projected Phase 1 Vehicle Trip Generation – TRANS Model

Land Use	Area	AM Peak (Veh/h)			PM Peak (Veh/h)		
		In	Out	Total	In	Out	Total
High Rise Apartments	260 units	14	48	62	43	27	70
Total 'New' Auto Trips		14	48	62	43	27	70

As shown in Table 9, a total of approximately 62 to 70 veh/h are projected to travel to/from the proposed development during both the weekday morning and afternoon commuter peak hours. The vehicle trips shown in Table 9 for the proposed site were converted to total person trips using the auto modal share values in Table 3.6 of the TRANS report which are summarized in Table 10. Total person-trip generation values were then reduced to non-auto modal shares using the mode shares outlined in Table 4. The modal share values for the apartment land use within the proposed Phase 1 development are summarized in Table 11.

Table 10: 2009 TRANS Report Person Trip Generation – Phase 1

Travel Mode	AM Mode Share	AM Peak (Person Trips/h)			PM Mode Share	PM Peak (Person Trips/h)		
		In	Out	Total		In	Out	Total
Auto Driver	37%	14	48	62	40%	43	27	70
Auto Passenger	8%	3	10	13	9%	10	6	16
Transit	41%	17	52	69	37%	39	25	64
Bike/Walk	14%	5	19	24	14%	14	10	24
Total Person Trips	100%	39	129	168	100%	106	68	174

Table 11: Modified 2011 OD Survey Modal Site Residential Trip Generation – Phase 1

Travel Mode	Mode Share	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	19	57	76	48	30	78
Auto Passenger	10%	5	12	17	11	7	18
Transit	30%	12	38	50	32	20	52
Bike	5%	1	7	8	5	4	9
Walk	10%	4	13	17	10	7	17
Total Person Trips	100%	39	129	168	106	68	174
Total 'New' Auto Trips		19	57	76	48	30	78

Phase 1 Total Trip Generation

The total projected new trips for Phase 1 of the proposed development are summarized below in Table 12.

Table 12: Total Phase 1 Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	20	58	78	53	37	90
Auto Passenger	10%	5	12	17	13	8	21
Transit	30%	14	39	53	36	25	61
Bicycle	5%	1	7	8	5	4	9
Walk	10%	5	14	19	12	10	22
Total Person Trips	100%	43	132	175	119	84	203
	Less Pass-by (35%)	0	0	0	-2	-2	-4
	Less Multi-Purpose (15%)	0	0	0	0	-1	-1
	Total 'New' Phase 1 Auto Trips	20	58	78	51	34	85

As shown in Table 12, the Phase 1 is projected to generate approximately 175 to 205 person-trips per hour during the weekday commuter peak hours. The increase in two-way transit trips is estimated to be approximately 55 to 60 persons per hour, and the increase in bike/walk trips is approximately 30 persons per hour. The total amount of 'new' vehicle traffic to the study area is projected to be approximately 80 to 85 veh/h during the morning and afternoon peak hours.

Phase 2 Trip Generation

Commercial Trip Generation

The person trip generation for the proposed grocery and retail developments is summarized in and the mode shares for the retail and grocery components are outlined in Table 13, Table 14 and Table 15, respectively, using the modal splits outlined in Table 4.

Table 13: Modified Person Trip Generation – Retail and Grocery Phase 2

Land Use	Area	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Shopping Centre	1,950 ft ²	1	1	2	4	6	10
Supermarket	22,200 ft ²	32	77	109	165	159	324
	Total Phase 2 "New" Person Trips	33	78	111	169	165	334

Table 14: Proposed Retail Modal Site Trip Generation – Phase 2

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	1	1	2	2	3	5
Auto Passenger	10%	0	0	0	0	1	1
Transit	30%	0	0	0	2	2	4
Bicycle	5%	0	0	0	0	0	0
Walk	10%	0	0	0	0	0	0
Total Person Trips	100%	1	1	2	4	6	10
	Less Pass-by (35%)	0	0	0	-1	-1	-2
	Less Multi-Purpose (15%)	0	0	0	0	0	0
	Total 'New' Shopping Centre Auto Trips	1	1	2	1	2	3

Table 15: Proposed Grocery Modal Site Trip Generation – Phase 2

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	14	35	49	74	71	145
Auto Passenger	10%	3	8	11	16	16	32
Transit	30%	9	23	32	49	48	97
Bicycle	5%	2	3	5	9	8	17
Walk	10%	4	8	12	17	16	33
Total Person Trips	100%	32	77	109	165	159	324
Less Pass-by (35%)		-9	-9	-18	-25	-25	-50
Less Multi-Purpose (15%)		-1	-4	-5	-7	-7	-14
Total 'New' Grocery Auto Trips		4	22	26	42	38	80

Residential Trip Generation

Using the TRANS Trip Generation rates outlined in Table 6 and the TRANS Trip Generation mode splits for the residential component of the site, the total amount of person trips generated by the proposed 743 residential units is summarized in Table 9.

Table 16: Projected Phase 2 Vehicle Trip Generation – TRANS Model

Land Use	Area	AM Peak (Veh/h)			PM Peak (Veh/h)		
		In	Out	Total	In	Out	Total
High Rise Apartments	763 units	42	136	178	124	77	201
Total 'New' Auto Trips		42	136	178	124	77	201

As shown in Table 16, a total of approximately 180 to 200 veh/h are projected to travel to/from the proposed development during both the weekday morning and afternoon commuter peak hours. The vehicle trips shown in Table 16 for the proposed site were converted to total person trips using the auto modal share values in Table 3.6 of the TRANS report which are summarized in Table 17. Total person-trip generation values were then split by mode using the 2011 OD-Survey modal shares outlined in Table 4. The updated anticipated trips generated by the apartment land use within the proposed Phase 2 development are summarized in

Table 17: 2009 TRANS Report High Rise Apartments, Person Trip Generation – Phase 2

Travel Mode	AM Mode Share	AM Peak (Person Trips/h)			PM Mode Share	PM Peak (Person Trips/h)		
		In	Out	Total		In	Out	Total
Auto Driver	37%	42	136	178	40%	124	77	201
Auto Passenger	8%	10	28	38	9%	28	17	45
Transit	41%	47	150	197	37%	115	71	186
Bike/Walk	14%	16	51	67	14%	43	27	70
Total Person Trips	100%	115	365	480	100%	310	192	502

Table 18: 2011 OD-Survey High Rise Apartments, Site Trip Generation – Phase 2

Travel Mode	Mode Share	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	51	165	216	140	86	226
Auto Passenger	10%	11	37	48	31	19	50
Transit	30%	34	110	144	93	58	151
Bike	5%	5	19	24	15	10	25
Walk	10%	11	37	48	31	19	50
Total Person Trips	100%	115	365	480	310	192	502
Total 'New' Auto Trips		51	165	216	140	86	226

Phase 2 Total Trip Generation

The total projected new trips for Phase 2 of the proposed development, which is the sum of the person trips shown in Table 14, Table 15, and Table 18 is summarized below in Table 19.

Table 19: Total Phase 2 Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	66	201	267	216	160	376
Auto Passenger	10%	14	45	59	47	36	83
Transit	30%	43	133	176	144	108	252
Bicycle	5%	7	22	29	24	18	42
Walk	10%	15	45	60	48	35	83
Total Person Trips	100%	148	443	591	479	357	836
Less Pass-by (35%)		-9	-9	-18	-26	-26	-52
Less Multi-Purpose (15%)		-1	-4	-5	-7	-7	-14
Total 'New' Phase 2 Auto Trips		56	188	244	183	127	310

As shown in Table 19, Phase 2 is projected to generate approximately an additional 590 to 835 person-trips per hour in the weekday commute peak hours. The increase in two-way transit trips is estimated to be approximately 175 to 250 persons per hour, and the increase in bike/walk trips is approximately 90 to 125 persons per hour. The total amount of 'new' vehicle traffic to the study area is projected to be approximately 245 veh/h during the morning peak hour and approximately 310 veh/h in the afternoon peak hour.

Total Phase 1 and Phase 2 Site Trip Generation

The total Phase 1 and Phase 2 projected trips for the proposed development are summarized below in Table 20.

Table 20: Total Phase 1 and Phase 2 Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	86	259	345	269	197	466
Auto Passenger	10%	19	57	76	60	44	104
Transit	30%	57	172	229	180	133	313
Bicycle	5%	8	29	37	29	22	51
Walk	10%	20	59	79	60	45	105
Total Person Trips	100%	191	575	766	598	441	1,039
Less Pass-by (35%)		-9	-9	-18	-28	-28	-56
Less Multi-Purpose (15%)		-1	-4	-5	-7	-8	-15
Total 'New' Phase 2 Auto Trips		76	246	322	234	161	395

As shown in Table 20, the site is projected to generate approximately 765 to 1,040 person-trips per hour in the weekday commute peak hours. The increase in two-way transit trips is estimated to be approximately 230 to 315 persons per hour, and the increase in bike/walk trips is approximately 115 to 155 persons per hour. The total vehicle trips generated by the site is projected to be approximately 320 veh/h during the morning peak hour and approximately 395 veh/h in the afternoon peak hour.

Total Net Trips Generated by the Proposed Site

Using the Phase 1 values presented in Table 12 and subtracting the existing trips shown in Table 5, Table 21 illustrates the total net trips generated by the proposed development once Phase 1 has been constructed.

Table 21: Total Net 'New' Phase 1 Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	-5	23	18	-91	-83	-174
Auto Passenger	10%	-2	5	3	-21	-18	-39
Transit	30%	1	20	21	-54	-49	-103
Bicycle	5%	-1	5	4	-10	-9	-19
Walk	10%	-1	6	5	-20	-17	-37
Total Person Trips	100%	-10	61	51	-196	-176	-372
Less Pass-by (35%)		10	10	20	51	51	102
Less Multi-Purpose (15%)		2	4	6	14	9	23
Total 'Net' Phase 1 Auto Trips		7	37	44	-26	-23	-49

As shown in Table 21 above, the total net increase/decrease Phase 1 trips are anticipated to be 44 veh/h and -49 veh/h during the morning and afternoon peak hours, respectively.

Similar to above, using combined Phase 1 and Phase 2 site generated trips displayed in Table 20, and subtracting the existing trips displayed in Table 5, the total net increase Phase 1 and Phase 2 trips generated by the proposed development is calculated and shown in Table 22.

Table 22: Total Net Phase 1 and Phase 2 Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	45%	61	224	285	125	77	202
Auto Passenger	10%	12	50	62	26	18	44
Transit	30%	44	153	197	90	59	149
Bicycle	5%	6	27	33	14	9	23
Walk	10%	14	51	65	28	18	46
Total Person Trips	100%	138	504	642	283	181	464
Less Pass-by (35%)		1	1	2	25	25	50
Less Multi-Purpose (15%)		1	0	1	7	2	9
Total 'Net' Phase 1 & 2 Auto Trips		63	225	288	157	104	261

As displayed in Table 22 above the net total increase trips generated by Phase 1 and Phase 2 are anticipated to be approximately 288 veh/h and 261 veh/h for the morning and afternoon peak hours, respectively.

3.1.2. MODE SHARES

As the chosen mode shares reflect a higher transit usage than the average for the Ottawa East district, the mode shares outlined in Table 4 are assumed for all horizon years.

3.1.3. TRIP DISTRIBUTION AND ASSIGNMENT

Based on the 2011 OD Survey (Ottawa East district) and the location of adjacent arterial roadways and neighbourhoods, the distribution of site-generated traffic volumes was estimated as follows:

- 50% to/from the east;
- 35%/30% to/from the west;
- 5/10% to/from the north; and,
- 10% to/from the south.

The expected 'new' and 'pass-by' site-generated auto trips for Phase 1 (Table 12) and Phase 2 (Table 19) of the proposed development (Figure 2) are assigned to the road networks as shown in Figure 13, Figure 14, Figure 15, and Figure 16, respectively. Please note that the negative values represent the pass-by trips. Figure 17 illustrates the total site generated trips applied to the network, including pass-by trips.

Figure 13: Phase 1 'New' Site-Generated Traffic

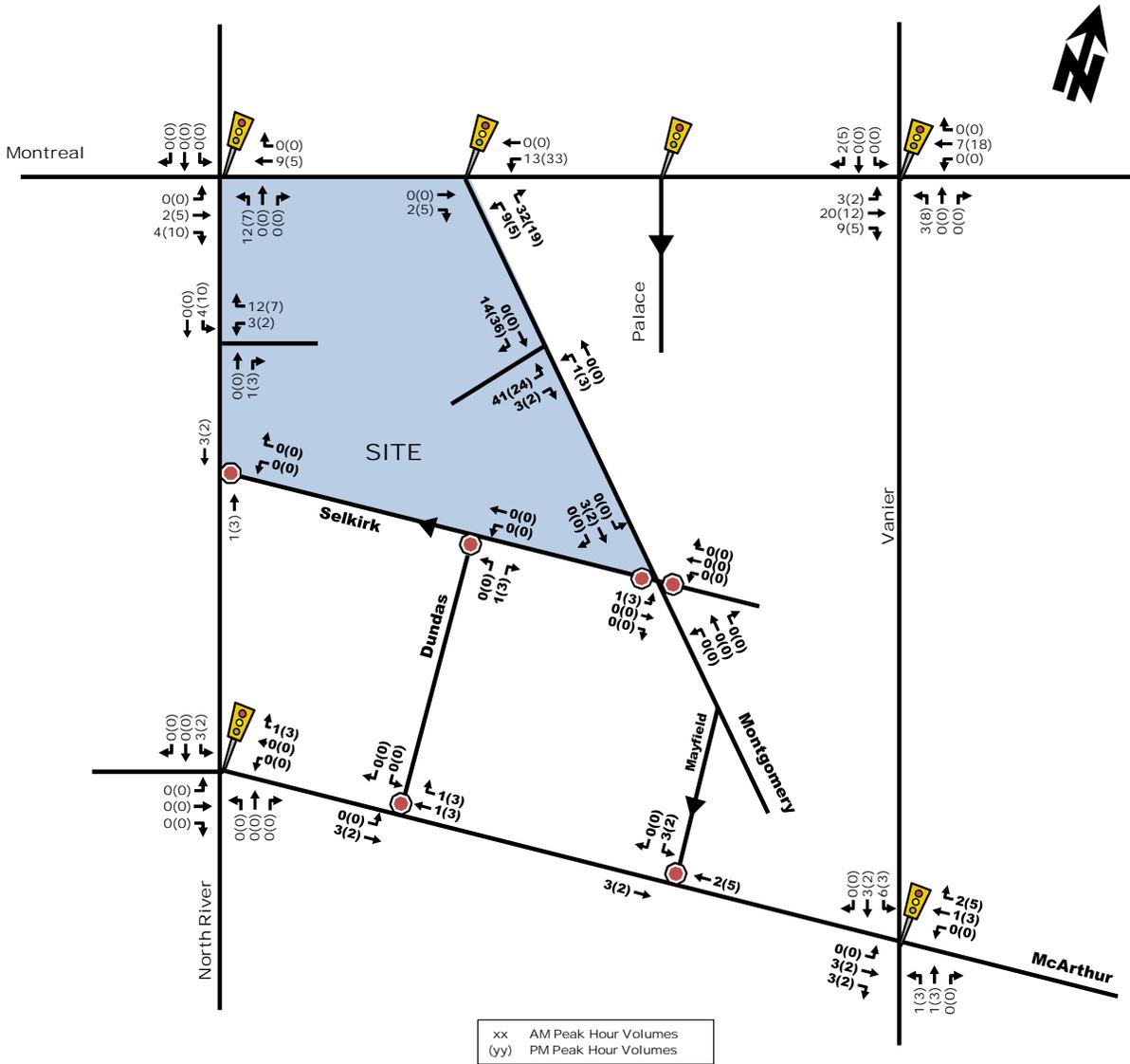


Figure 14: Phase 1 'Pass-By' Site-Generated Traffic

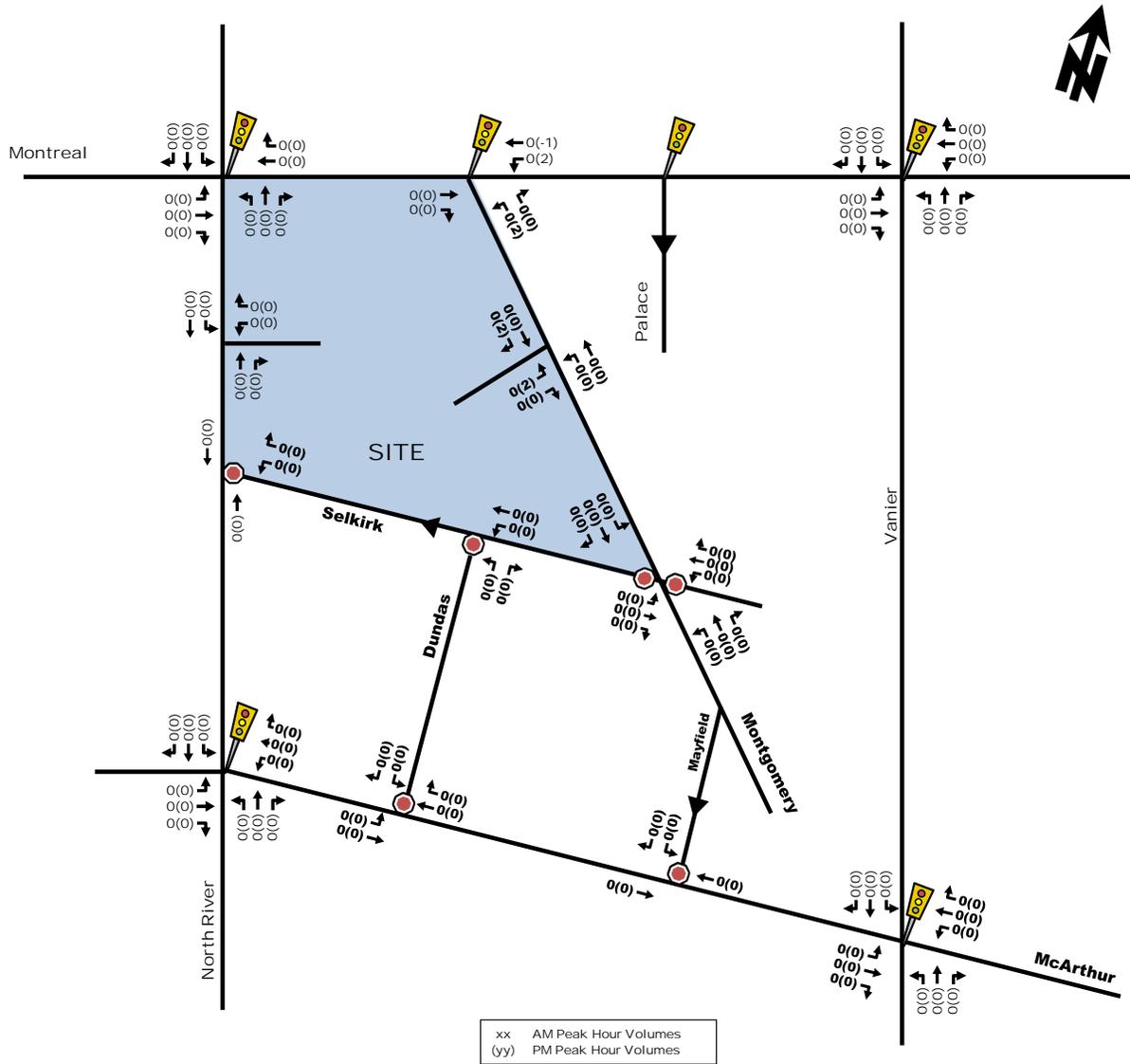


Figure 15: Phase 2 'New' Site-Generated Traffic

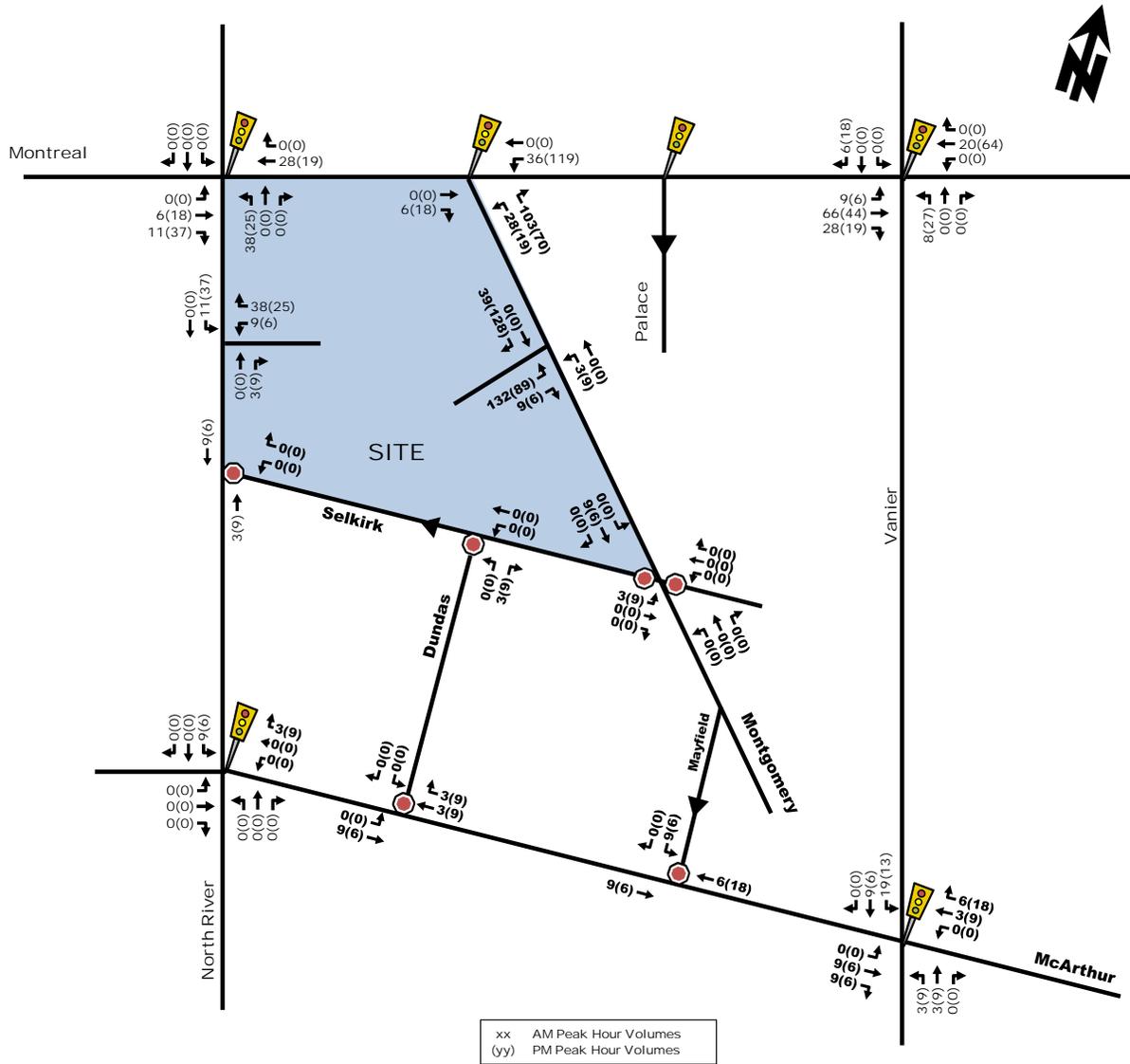


Figure 16: Phase 2 'Pass-By' Site-Generated Traffic

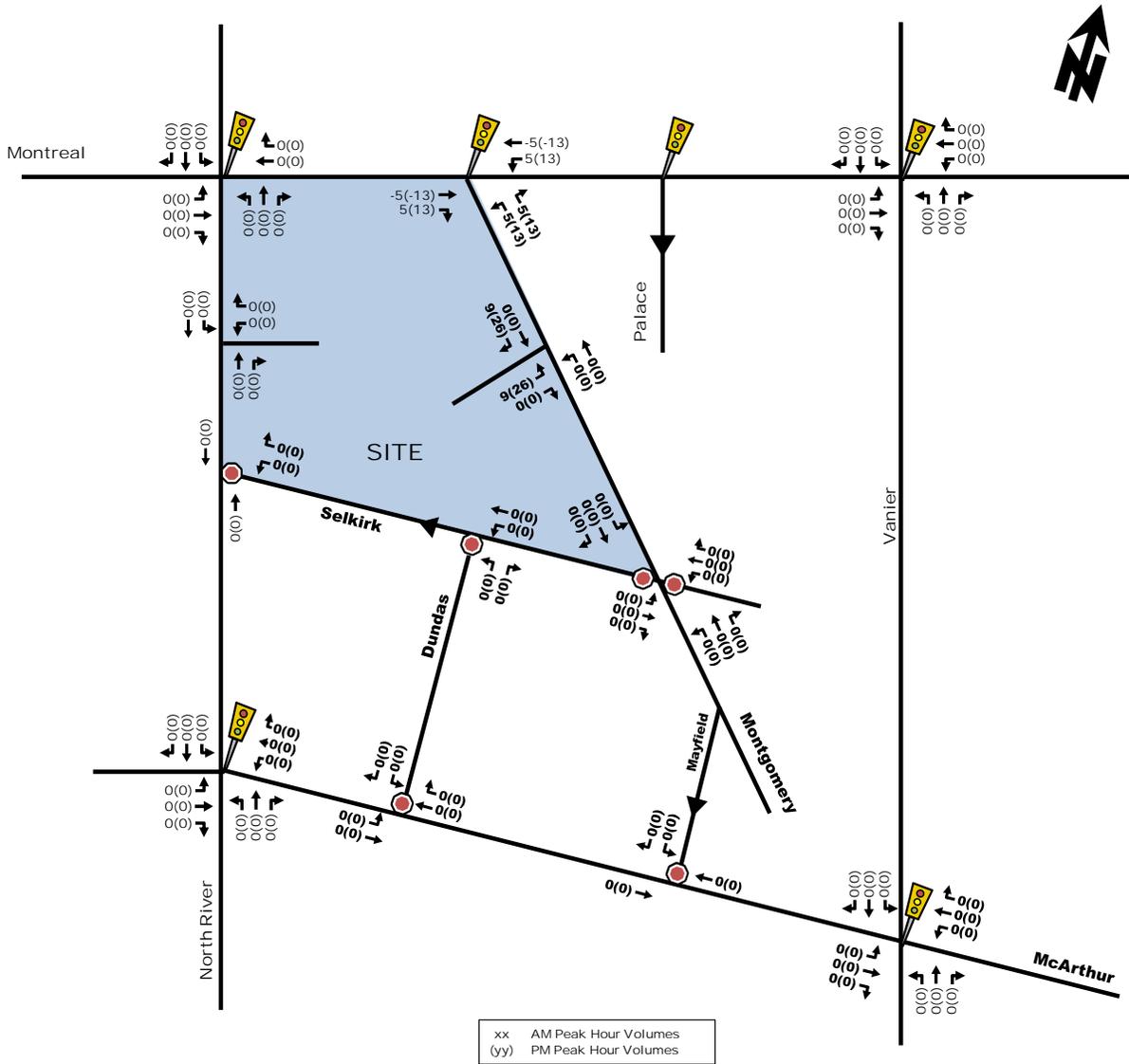
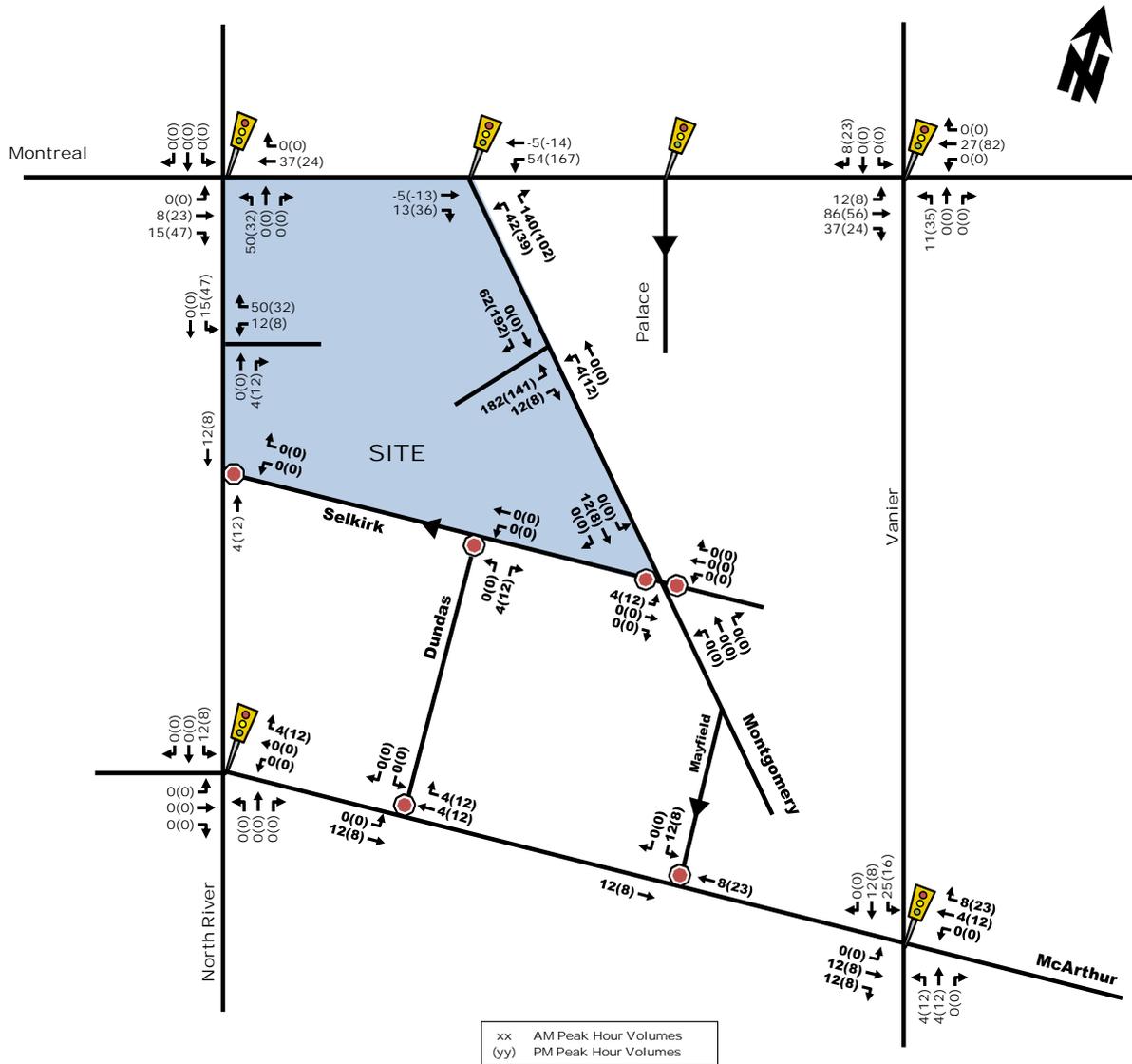


Figure 17: Total Phase 1 and Phase 2 Trip Generation



3.2. BACKGROUND NETWORK TRAFFIC

3.2.1. TRANSPORTATION NETWORK PLANS

Refer to Section 2.1.3.

3.2.2. BACKGROUND GROWTH

The following background traffic growth (summarized in Table 23) was calculated based on historical traffic count data (years 2010, 2016 and 2020) provided by the City of Ottawa at the North River/Montreal intersection. Detailed background traffic growth analysis is included as Appendix D.

Table 23: North River/Montreal Historical Background Growth (2010-2020)

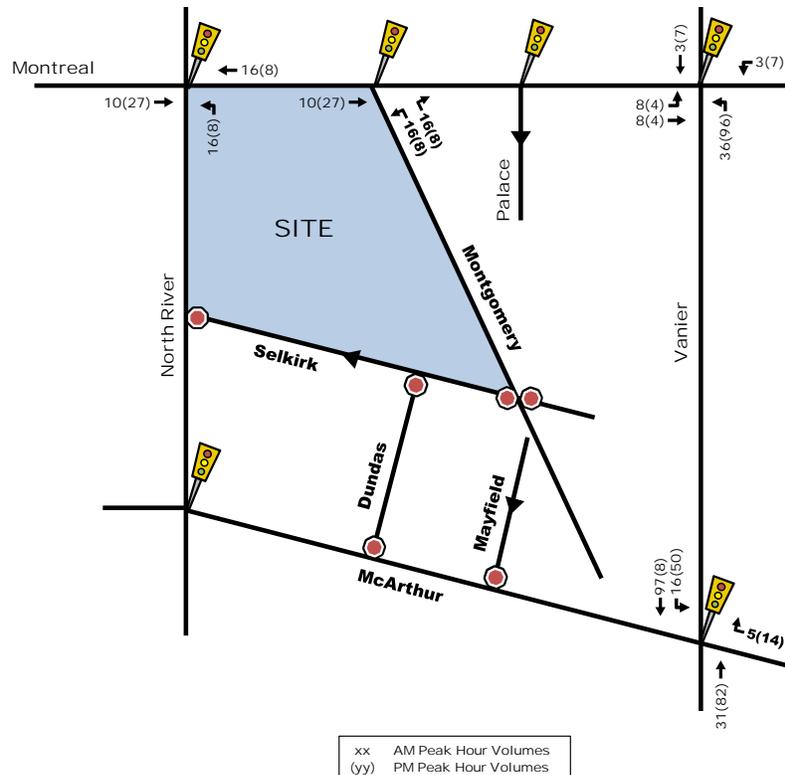
Time Period	Percent Annual Change				
	North Leg	South Leg	East Leg	West Leg	Overall
8 hrs	-1.31%	-0.79%	-1.06%	-1.28%	-1.08%
AM Peak	-0.65%	-0.97%	-0.38%	-0.83%	-0.63%
PM Peak	-5.20%	-2.46%	-1.40%	-0.91%	-1.53%

As shown in Table 23, the North River/Montreal intersection has experienced approximately 0.5 to 1.5% overall annual decrease in traffic within recent years. This is consistent with the decline in vehicular traffic outlined in the TMP. Rather than use a negative growth rate, a more conservative growth rate will be used of 0% annual growth as advised by City of Ottawa transportation strategic planner, Jennifer Armstrong, on April 11th, 2019.

3.2.3. OTHER DEVELOPMENTS

Description of other area developments taking place within the study area was provided in Section 2.1.3. Traffic volumes anticipated to be generated by the future adjacent development at 112 Montreal Road/314 Gardner Street are illustrated in Figure 18.

Figure 18: 112 Montreal Road/314 Gardner Street Anticipated Site-Generated Traffic



As the adjacent future development at 244 Fountain Place only consists of 22 units, it is expected that the transportation impacts on the study area intersections will be negligible and as such, will not be included in background traffic. The development at 263 Greensway Avenue only projects an increase of 50 persons per hour and a trip distribution analysis was not completed in this development's TIA. As such, this development will not be included in background traffic.

3.3. DEMAND RATIONALIZATION

The 2022 and 2025 total projected volumes are composed of the existing traffic volumes (Figure 7) combined with the anticipated site generated vehicle volumes. Figure 19 displays the 2022 total projected volumes and Figure 20 illustrates the total 2025 projected volumes. As there is no projected background traffic growth, the 2030 horizon year traffic volumes are anticipated to be similar to the 2025 horizon year.

The TAC Guide for Signalized Intersection (2008) identifies the typical saturation flow rate for through lanes and left turn lanes as approximately 1,800 veh/h/ln and 1,750 veh/h/ln, respectively. While there are not any movements at study area intersections reaching this threshold, there are still anticipated capacity issues along Montreal Road and Vanier Parkway at major intersections. This will be further explored in Section 4.9 of the Strategy Report.

Figure 19: Total Projected Volumes - Phase 1, 2022

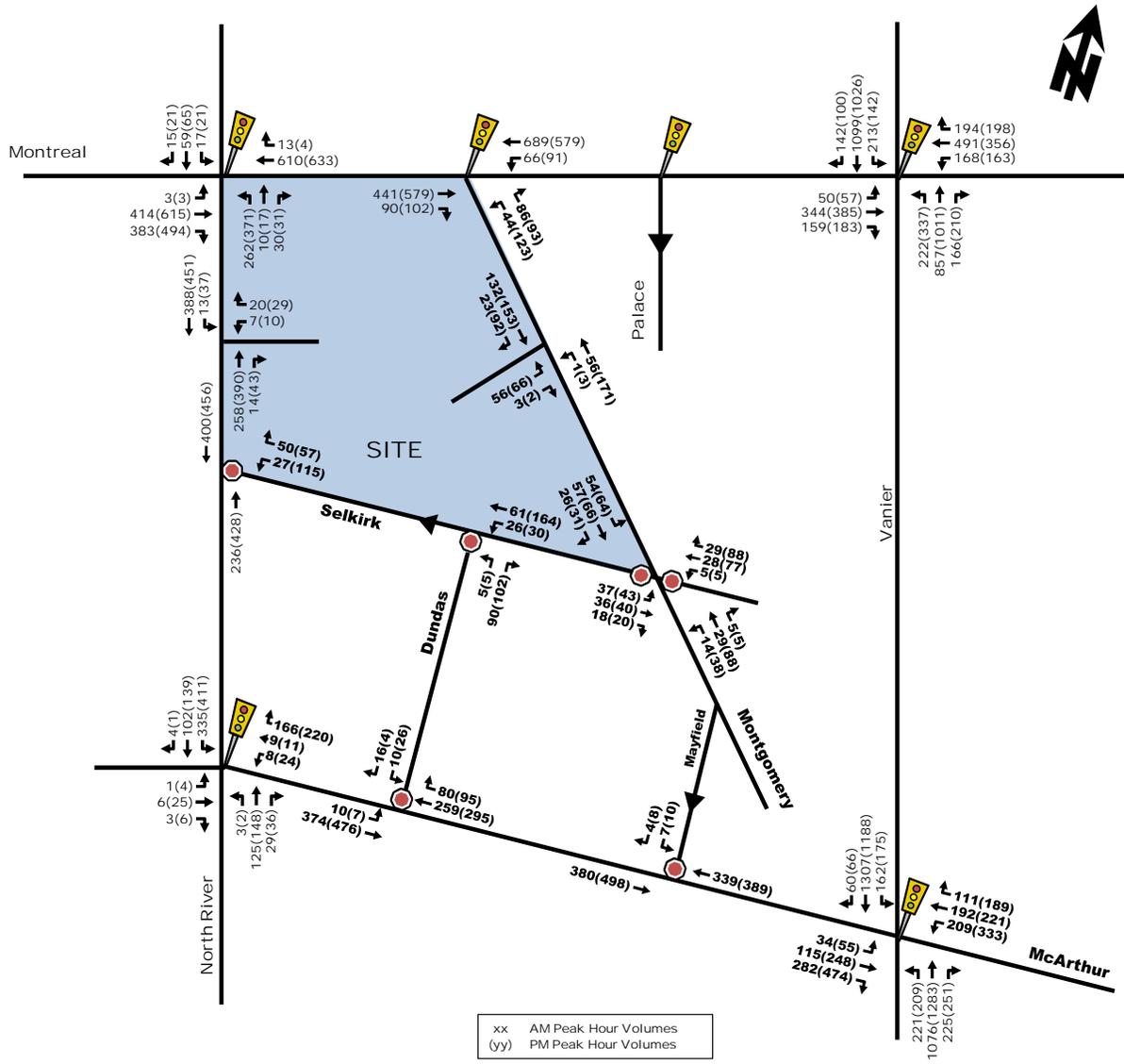
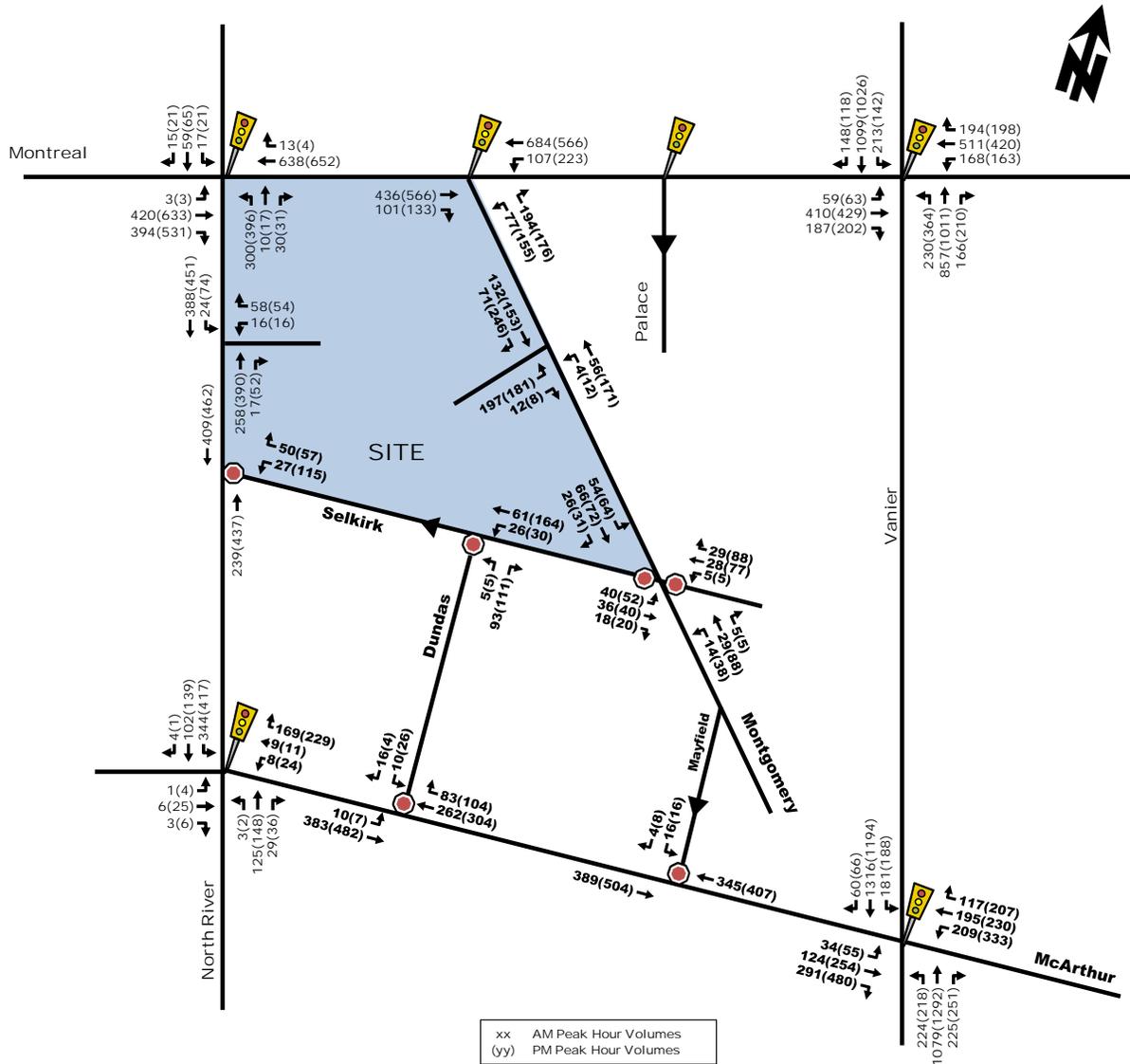


Figure 20: Total Projected Volumes – Phase 2, 2025



4. ANALYSIS

4.1. DEVELOPMENT DESIGN

Exempt – See Section 2.3.

As this is TIA for a Zoning Application, the Design Review Component is not required. It will be included in the subsequent TIA in support of the SPA.

4.2. PARKING

Exempt – See Section 2.3.

As this is TIA for a Zoning Application, the Design Review Component is not required. It will be included in the subsequent TIA in support of the SPA.

4.3. BOUNDARY STREET DESIGN

Exempt – See Section 2.3.

As this is TIA is for a Zoning Application, the Design Review Component is not required. It will be included in the subsequent TIA in support of the SPA.

4.4. ACCESS INTERSECTION DESIGN

Exempt – See Section 2.3.

As this is TIA is for a Zoning Application, the Design Review Component is not required. It will be included in the subsequent TIA in support of the SPA.

4.5. TRANSPORTATION DEMAND MANAGEMENT

The TDM-Supportive Development Design and Infrastructure Checklist and TDM Measures Checklist have been provided as Appendix E. Some of the TDM measures that the proponent is providing/considering are as follows:

- Buildings located close to the street with parking not located between the entrances and the street;
- Direct and attractive walking routes provided from building entrances to adjacent transit stop on North River Road;
- On-site bicycle parking provided indoors;
- Landscaping and benches provided along walking and cycling routes;
- Designated drop-off/pick-up areas provided on-site;
- Display local area cycling/walking routes and key destinations at entrances;
- Display relevant transit schedules and route maps at entrances;
- Contract with provider to install on-site carsharing vehicles;
- Unbundle parking costs from rent; and,
- Provide multi-modal travel option information package to new residents.

4.6. NEIGHBOURHOOD TRAFFIC MANAGEMENT

The following section discusses the development’s impact on the surrounding neighbourhood and local access route along Montgomery Street. Table 24 summarizes the roadway’s classification, the TIA Guideline’s roadway threshold, and the approximate existing and projected traffic on this access route to the site. Note that North River Road is not included in this analysis as it is classified as an arterial roadway adjacent to the site.

Table 24: Roadway Classification Analysis of Site Access Routes

Roadway	Classification	Daily Threshold (veh/day)	Peak Hour Peak Direction Threshold (veh/h)	Peak Hour Peak Direction Volumes	
				AM Peak (PM Peak)	
				Existing	Projected
Montgomery Street – Montreal Road to Selkirk Street	Local	1,000	120	140 (170)	190 (360)

As shown in Table 24, the existing and projected peak hour peak directional volumes exceed the suggested thresholds on Montgomery Street during both peak hours. The largest increase in peak direction traffic occurs during the afternoon peak hour and is approximately 190 veh/h (170 veh/h to 360 veh/h). Potential measure to mitigate this measure could be to make the North River/Site access a more desired access/egress point to redirect traffic from Montgomery Street to the arterial roadway. It should be noted however that the westbound left-turn at the Montreal/North River intersection is prohibited. As such, it would be easier to make the North River/Site access a more desired egress point than access point.

Mauril-Bélanger Public School

There is an existing French public school on the east side of Montgomery Street, just north of Selkirk Street. Discussions with the School have resulted in an understanding of key operating characteristics, which are as follows:

- School hours are from 9:00am to 3:30pm with staff arriving between 8:00-8:15am;
- The daycare facility on-site operates between 6:00am – 6:00pm;

- There is on-site parking for staff and visitors (25 or so spaces total) with 1 accessible space;
 - parking spaces operate on a first-come-first-serve basis;
 - during past special school events, Eastview Plaza has permitted the school to use mall parking (3-4 times a year, up to 20 or so spaces)
- There are three school buses that service the school;
 - In the morning they arrive between 8:40 and 8:50am and are there for approximately 5 minutes;
 - In the afternoon, buses arrive 3:15-3:20pm, and wait for approximately 20 minutes and leave around 3:35pm;
 - Buses service about 75% of students;
 - Very few students walk or bike (approximately less than 10);
 - There is a designated curbside school bus drop-off/pick-up area adjacent to the school;
- The estimated number of parent drop-offs/pick-ups when buses are present are approximately 10 in both the morning and afternoon;
- There is no desire line for students/pedestrians to cross Montgomery Street between the school and the existing Eastview Plaza; and,
- There are no crossing guards for the school.

The School did indicate a minor concern with potential for speeding/traffic volumes on Montgomery Street adjacent to the school and expressed a desire for a more formal lay-by area for school buses with wider sidewalk treatments.

4.7. TRANSIT

See Section 2.3 for a description of existing transit within the study area. A transit shelter is currently proposed at the on-site transit stop on North River Road. Currently only a bench and bus flag are provided.

4.8. REVIEW OF NETWORK CONCEPT

The relevant screenlines located west of the proposed development is SL 33 – Rideau River North with a station at Cummings Bridge within the study area (Figure 21) crossing at Montreal Road. The May 2019 Screenline count data was obtained from the City of Ottawa and is included in Appendix F. The existing performance of the relevant study area screenlines is summarized below in Table 25.

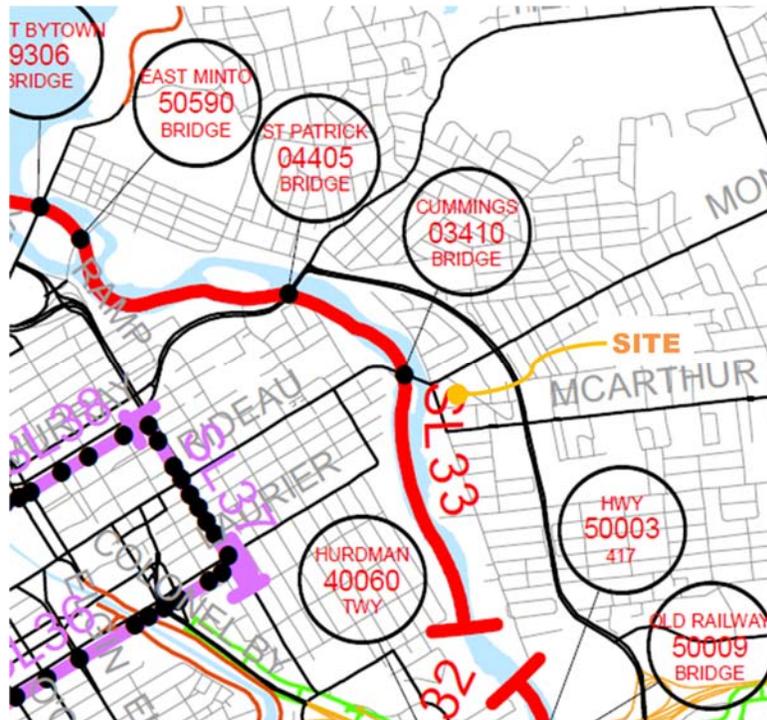
Table 25: Existing Screenline Performance

Screenline	Peak Directional Demand ¹ (PCU) ²		Directional Capacity ³ (PCU)	v/c	
	AM Peak	PM Peak		AM Peak	PM Peak
SL 33: Cummings Bridge Station	1,050	1,344	1,200	0.88 (LoS 'D')	1.12 (LoS 'F')

1. 2019 volumes obtained from the City of Ottawa
 2. PCU (Passenger Car Units) were assumed to be the sum of autos and 2 x heavy vehicles
 3. Directional capacities were obtained from the City's 2008 Transportation Master Plan – Road Infrastructure Needs Study

As shown in Table 2, SL 33 is currently operating at an LoS 'D' during the morning peak hour and an LoS 'F' during the afternoon peak hour. It can be seen that there is available spare capacity across this screenline during the morning peak hour but not the afternoon peak hour. It should be noted however that the screenline count was completed pre-LRT opening in September 2019. It is possible that a percentage of existing traffic has since transferred to transit which would help relieve pressure on the existing network.

Figure 21: 2010 TRANS Screenline System



4.9. INTERSECTION DESIGN

4.9.1. EXISTING CONDITIONS

The following Table 26 provides a summary of the existing traffic operations at study area intersections based on the Synchro (V10) traffic analysis software and the existing traffic volumes (Figure 7). The subject signalized intersections were assessed in terms of the volume-to-capacity (v/c) ratio and the corresponding Level of Service (LoS) for the critical movement(s). The subject signalized intersections ‘as a whole’ were assessed based on weighted v/c ratio. The unsignalized intersections were assessed based on delay and the corresponding level of service. The Synchro model output of background conditions is provided within Appendix G.

Table 26: Existing Intersection Performance

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection ‘as a whole’		
	LoS	max. v/c or avg. delay (s)	Movement	Delay (s)	LoS	v/c
Signalized Intersections						
North River/Montreal	B(D)	0.69(0.89)	NBL(NBL)	12.5(26.1)	A(C)	0.49(0.72)
Montgomery/Montreal	A(A)	0.55(0.54)	WBT(NBL)	3.9(10.0)	A(A)	0.53(0.34)
Vanier/Montreal	D(D)	0.82(0.84)	WBT(NBL)	40.8(42.8)	B(C)	0.62(0.71)
North River/McArthur	A(D)	0.59(0.81)	SBT(SBT)	10.4(17.0)	A(B)	0.46(0.62)
Vanier/McArthur	D(F)	0.87(1.27)	NBL(WBL)	38.0(61.9)	D(E)	0.82(0.98)
Unsignalized Intersections						
Dundas/McArthur	B(C)	14.2(20.0)	SB(SB)	0.6(0.7)	A(A)	-
Mayfield/McArthur	B(B)	12.5(14.2)	SB(SB)	0.1(0.3)	A(A)	-
Selkirk/North River	B(C)	12.6(18.3)	WB(WB)	1.1(2.9)	A(A)	-
Selkirk/Montgomery	B(B)	11.3(14.8)	EB(EB)	6.5(7.8)	A(A)	-
Montgomery/Site	A(B)	9.7(11.1)	EB(EB)	0.9(1.8)	A(A)	-
North River/Site	B(B)	11.3(13.6)	WB(WB)	0.3(1.7)	A(A)	-
Note:	Analysis of signalized intersections assumes a PHF of 0.95 and a saturation flow rate of 1800 veh/h/lane.					

As shown in Table 26, study area intersections ‘as a whole’ operate at an acceptable LoS ‘E’ during the morning and afternoon peak hours. Regarding critical movements, study area intersections operate at an acceptable LoS ‘D’ or better during morning and afternoon peak hours with the exception of the WBL at the Vanier/McArthur intersection. This movement experiences up to 350 veh/h during the afternoon peak hour which results in the poor level of service. It should be noted that it is unlikely that the proposed development will add to this movement as it is located northwest of the Vanier/McArthur intersection.

Multi-Modal Level of Service – Existing Conditions

The MMLoS analysis for the signalized study area intersections is summarized in Table 27. The detailed MMLoS analysis is provided as Appendix H.

Table 27: MMLoS – Signalized Intersections, Existing Conditions

Intersection	Level of Service									
	Pedestrian (PLOS)		Bicycle (BLOS)		Transit (TLOS)		Truck (TkLoS)		Vehicle (LoS)	
	PLOS	Target	BLOS	Target	TLOS	Target	TkLoS	Target	LoS	Target
North River/Montreal	D	A	F	C	F	N/A	F	D	C	E
Montgomery/Montreal	D	A	D	C	B	N/A	D	D	A	E
Vanier/Montreal	F	A	F	C	F	C	B	D	C	E
North River/McArthur	D	A	D	C	D	N/A	F	N/A	B	E
Vanier/McArthur	F	A	F	C	F	N/A	A	D	E	E

The letters identified in red text in Table 27 do not meet the MMLoS Targets for their designated area (within 300m of a school). While there are transit priority measures in the form of continuous lanes on Montreal Road, these end east of the Montgomery/Montreal intersection and as such, there is only a target TLoS for the Vanier/Montreal intersection. As North River Road and McArthur Avenue do not form part of the truck route and, as such, there is no TkLoS target for this intersection.

With regard to pedestrians, the low effective walk time and long crossing distances (crossing 4+ lanes) are the main factors for the failing levels of service. The pedestrian level of service at these intersections could be improved by considering major geometric and signal timing changes.

With regard to cyclists, there are no facilities provided at study area intersections which results in the failing levels of service as cyclists must travel in mixed traffic. Potential mitigative measures include cross-rides, bike boxes, or pocket bike lanes. Note that implementation of bike boxes would require the right-turn-on-red to be prohibited. Based on the Montreal Road Revitalization Plan, cross-rides will be implemented at the Vanier/Montreal and North River/Montreal intersections.

With regard to transit, there is an approximate 50 second delay at the Vanier/Montreal intersection resulting in a poor level of service. This may be improved by adjusting the signal timing however this location experiences high traffic volumes during peak hours and as such, may not result in a significant increase in level of service.

With regard to trucks, as North River Road only has one receiving lane on the north leg, the resulting level of service is an TkLoS ‘F’. It should be noted however, that the TkLoS on the remaining three legs of this intersection are TkLoS ‘D’ which meets the target.

4.9.2. TOTAL PROJECTED CONDITIONS

2022 Horizon Year

The following Table 28 provides a summary of the total 2022 projected operations at the study area intersections based on the Synchro (V10) traffic analysis software. The Synchro model output of total 2022 projected conditions is provided within Appendix G.

Table 28: Total Projected 2022 Performance at Study Area Intersections

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LoS	max. v/c or avg. delay (s)	Movement	Delay (s)	LoS	v/c
Signalized Intersections						
North River/Montreal	C(E)	0.71(0.91)	NBL(NBL)	14.6(27.8)	A(C)	0.54(0.76)
Montgomery/Montreal	B(A)	0.62(0.57)	WBT(NBL)	6.4(14.3)	A(A)	0.59(0.42)
Vanier/Montreal	E(F)	0.91(1.04)	EBT(NBL)	46.7(49.7)	C(D)	0.75(0.85)
North River/McArthur	B(D)	0.63(0.81)	SBT(SBT)	12.2(17.1)	A(B)	0.49(0.62)
Vanier/McArthur	E(F)	0.99(1.27)	SBT(WBL)	46.7(68.6)	E(E)	0.91(0.99)
Unsignalized Intersections						
Dundas/McArthur	B(C)	14.2(20.1)	SB(SB)	0.6(0.7)	A(A)	-
Mayfield/McArthur	B(B)	13.2(14.8)	SB(SB)	0.2(0.3)	A(A)	-
Selkirk/North River	B(C)	12.6(18.6)	WB(WB)	1.4(3.0)	A(A)	-
Selkirk/Montgomery	B(C)	11.4(14.8)	EB(EB)	6.4(7.8)	A(A)	-
Montgomery/Site	B(B)	10.0(11.7)	EB(EB)	2.2(1.7)	A(A)	-
North River/Site	B(B)	11.3(14.0)	WB(WB)	0.7(1.0)	A(A)	-
Note:	Analysis of signalized intersections assumes a PHF of 0.95 and a saturation flow rate of 1800 veh/h/lane.					

As shown in Table 28, study area intersections are projected to operate similar to existing conditions with slight increases to v/c ratios and delay. Study area intersections 'as a whole' are projected to operate at an acceptable LoS 'E' during the morning and afternoon peak hours. The major change from existing conditions is the overall level of service at the Vanier/Montreal intersection decreases from an LoS 'B' and LoS 'C' to an LoS 'C' and LoS 'D' during the morning and afternoon peak hours respectively.

Regarding critical movements, the study area intersections are projected to operate at an acceptable LoS 'E' or better during morning and afternoon peak hours. The exceptions are the critical WBL movement at the Vanier/McArthur intersection and the NBL at the Vanier/Montreal intersection which are projected to operate at an LoS 'F' during the afternoon peak hour. The projected NBL volume at the Vanier/Montreal intersection is upwards of 330 veh/h. Generally speaking, a left-turning movement greater than 300 veh/h is usually considered for dual left-turn lanes. However, with a nine-lane cross-section of Vanier Parkway already at this location, it is unlikely that an additional NBL could be implemented. As such, a more appropriate mitigative measure involves optimizing the signal timing to provide more green time for the NBL movement, which improves the critical movement to LoS 'E'.

2025 Horizon Year

The following Table 29 provides a summary of the total 2025 projected operations at the study area intersections based on the Synchro (V10) traffic analysis software. The Synchro model output of total projected conditions is provided within Appendix G.

Table 29: Total Projected 2025 Performance at Study Area Intersections

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LoS	max. v/c or avg. delay (s)	Movement	Delay (s)	LoS	v/c
Signalized Intersections						
North River/Montreal	D(E)	0.82(0.93)	NBL(NBL)	17.6(29.7)	A(D)	0.60(0.81)
Montgomery/Montreal	C(B)	0.76(0.64)	WBT(NBL)	9.9(13.4)	C(A)	0.72(0.54)
Vanier/Montreal	E(F)	0.97(1.14)	EBT(NBL)	49.2(55.0)	D(D)	0.82(0.90)
North River/McArthur	B(D)	0.64(0.82)	SBT(SBT)	12.5(17.5)	A(B)	0.50(0.63)
Vanier/McArthur	E(F)	1.00(1.27)	SBT(WBL)	49.3(70.7)	E(E)	0.92(1.00)
Unsignalized Intersections						
Dundas/McArthur	B(C)	14.3(20.5)	SB(SB)	0.6(0.7)	A(A)	-
Mayfield/McArthur	B(C)	14.4(16.2)	SB(SB)	0.3(0.4)	A(A)	-
Selkirk/North River	B(C)	12.6(18.9)	WB(WB)	1.3(3.0)	A(A)	-
Selkirk/Montgomery	B(C)	11.5(15.6)	EB(EB)	6.3(8.0)	A(A)	-
Montgomery/Site	B(B)	11.8(15.8)	EB(EB)	5.3(4.0)	A(A)	-
North River/Site	B(C)	11.9(15.4)	WB(WB)	1.5(1.8)	A(A)	-
Note:	Analysis of signalized intersections assumes a PHF of 0.95 and a saturation flow rate of 1800 veh/h/lane.					

As shown in Table 29, study area intersections are projected to operate similar to 2022 conditions with slight increases to v/c ratios and delay. Study area intersections 'as a whole' are projected to operate at an acceptable LoS 'E' or better during the morning and afternoon peak hours for all horizon years.

Regarding critical movements, the study area intersections are projected to operate at an acceptable LoS 'E' or better during morning and afternoon peak hours. The exceptions are the critical WBL movement at the Vanier/McArthur intersection and the NBL at the Vanier/Montreal intersection which are projected to continue operating at an LoS 'F' during the afternoon peak hour. As mentioned previously, optimizing the signal timing increases the critical movement LoS to an 'E' at the Vanier/Montreal intersection. However, the critical movement at the McArthur/Vanier intersection remains an LoS 'F'.

2030 Horizon Year

As there is no projected background traffic, the projected 2030 horizon year traffic operations are expected to be similar to the 2025 horizon year. As such, the results shown in Table 29 and accompanying conclusions will remain constant for the 2030 horizon year.

Multi-Modal Level of Service – Projected 2022, 2025, 2030 Conditions

As mentioned in Section 2.1.3, there are intersection modifications at the North River/Montreal and Vanier/Montreal intersections as part of the Montreal Road Revitalization Plan. Changes to the North River/Montreal intersection include narrowing the south leg of the intersection such that there is only one southbound receiving lane, a northbound left-turn lane, and a northbound through/right-turn lane. Changes to the Vanier/Montreal intersection include adding cross-rides on all four legs of the intersection and reassigning the eastbound through/right turn lane to a right-turn only lane. These changes are expected to be implemented by the 2022 horizon year. Additionally, the Truck Route designation has been removed on North River Road.

The MMLOS analysis for these two modified intersections is summarized in Table 30. The detailed MMLoS analysis is provided as Appendix H. As there are no additional changes to study area intersection in the 2025 and 2030 horizon years, the results below and accompanying conclusions will remain constant for these horizon years.

Table 30: MMLoS – Signalized Intersections, Existing Conditions

Intersection	Level of Service									
	Pedestrian (PLoS)		Bicycle (BLoS)		Transit (TLoS)		Truck (TkLoS)		Vehicle (LoS)	
	PLoS	Target	BLoS	Target	TLoS	TLoS	TkLoS	Target	LoS	Target
North River/Montreal	D	A	F	C	F	N/A	F	N/A	C	E
Vanier/Montreal	F	A	E	C	F	C	B	D	D	E

The letters identified in red text in Table 30 do not meet the MMLoS Targets for their designated area (within 300m of a school). With the removal of the truck route designation on North River Road, there is no longer a TkLoS target as North River Road does not form a part of the truck route system.

As mentioned previously, with regard to pedestrians, the low effective walk time and long crossing distances (crossing 4+ lanes) are the main factors for the failing levels of service. The pedestrian level of service at these intersections could be improved by considering major geometric and signal timing changes. However, this will significantly impact vehicle levels of service as Montreal Road, Vanier Parkway, and North River Road are designated arterial roadways.

With regard to cyclists, as there are no facilities provided on Montreal Road between North River Road and Vanier Parkway, the overall BLoS of the North River/Montreal and Vanier/Montreal intersections remain BLoS ‘F’. It should be noted however that the bicycle level of service on the north, east, and south legs of the Vanier/Montreal intersection improve to BLoS ‘A’, exceeding the target level of service.

With regard to transit, there is an approximate 50 second delay at the Vanier/Montreal intersection resulting in a poor level of service. This may be improved by adjusting the signal timing however this location experiences high traffic volumes during peak hours and as such, may not result in a significant increase in level of service.

North River Road, and the Vanier Parkway which results in the failing levels of service as cyclists must travel in mixed traffic. It would be difficult to provide cycling facilities on these roadways as there is limited space within the right of way.

5. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results summarized herein, the following transportation related conclusions are offered for each travel mode:

Proposed Site

- Main + Main is proposing a mixed-use development comprised of 3 high-rise residential towers totalling 1,003 units, 22, 200 ft² of grocery retail, and 7,800 ft² retail space;
- Phase 1 build-out is expected in 2022 with the build-out of Phase 2 expected in 2025;
- Parking is currently proposed in a surface and underground parking structure. Approximately 963 vehicle parking spaces are provided (803 for residents, 80 commercial parking spaces, and 80 visitor spaces). Bicycle parking is provided in interior storage rooms with approximately 514 spaces proposed for residential and commercial use;
 - Compliance with City By-laws will be confirmed in the supporting TIA for the SPA; and,
- Vehicle access to the development is proposed via two existing connections, a full-movement access on Montgomery Street and a full-movement access on North River Road.

Site Trip Generation

- Phase 1 is projected to generate approximately 80 veh/h and 85 veh/h during the morning and afternoon peak hours respectively;

- The net increase/decrease of trips compared to existing trip generation is 45 veh/h and -50 veh/h during the morning and afternoon peak hours respectively;
- Phase 2 is projected to generate approximately 245 veh/h and 310 veh/h during the morning and afternoon peak hours respectively;
 - The net increase of trips compared to existing trip generation is 210 veh/h and 175 veh/h during the morning and afternoon peak hours respectively;
- The total site is projected to generate approximately 320 veh/h and 395 veh/h during the morning and afternoon peak hours respectively; and,
 - The net increase of trips compared to existing trip generation is 290 veh/h and 260 veh/h during the morning and afternoon peak hours respectively.

Existing and Projected Conditions

- The study area intersections operate 'as a whole' with a LoS 'E' or better during peak hours. Critical movements operate at a LoS 'D' or better during peak hours with the exception of the WBL at the Vanier/McArthur intersection;
- For the 2022 horizon year, study area intersections are projected to operate 'as a whole' with a LoS 'E' or better during peak hours. Critical movements operate at a LoS 'E' or better during peak hours with the exception of the WBL at the Vanier/McArthur intersection and NBL at the Vanier/Montreal intersection;
- For the 2025 horizon year, study area intersections are projected to operate 'as a whole' with a LoS 'E' or better during peak hours. Critical movements operate at a LoS 'E' or better during peak hours with the exception of the WBL at the Vanier/McArthur intersection and NBL at the Vanier/Montreal intersection;
- The MMLoS targets for existing conditions are not met at all locations for pedestrian and cycling modes. The target TLoS is not met at the Vanier/Montreal intersection and the target TkLoS is not met at the North River/Montreal intersection; and,
- With regard to the projected MMLoS, the improvements at the North River/Montreal and Vanier/Montreal increase the BLoS on some of the legs of each intersection however the overall BLoS remains the same as existing and does not meet the target. The pedestrian levels of service at these locations remain the same as well due to low effective walk time and long crossing distances.

Based on the foregoing, the proposed multi-use development fits well into the context of the surrounding area, and its location and design serve to promote use of walking, cycling, and transit modes, thus supporting City of Ottawa policies, goals and objectives with respect to redevelopment, intensification and modal share. Therefore, approval from a transportation perspective of the proposed mixed-use development is recommended.

Once the ZBA submission is approved, the next steps for the Site Plan Application will include updating this report to include Modules 4.1 to 4.2 and assess the design review component of the proposed development.

Prepared By:

Reviewed by:

Rani Nahas, E.I.T.
Transportation Analyst

Matthew Mantle, P.Eng.
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APPENDIX A

Screening Form and Correspondence

7 July 2020

City of Ottawa
Development Review Services
110 Laurier Avenue West
Ottawa, ON K1P 1J1

Attention: Wally Dubyk

Dear wally:

**Re: 29 Selkirk Street
Step 3 Forecasting Report – Comment/Response Letter**

This Addendum has been prepared to address the comments received from the City of Ottawa, dated June 12th, 2018, with corresponding responses from Parsons.

1.1. TRAFFIC ENGINEERING SERVICES

Comment 1: *Correct the following:*

- *The cycling lanes are separated by flex stakes and occasional concrete medians along McArthur Avenue.*
- *North River Road is an arterial road between Montreal Road and McArthur Avenue.*
- *Mention the on-street parking available on McArthur Avenue.*
- *Ensure that the Vanier Parkway and Montreal Road intersection is analysed in the strategy report.*

Response 1: these have been revised.

Comment 2: *Clarify that the Transit Priority Measures along North River Road and McArthur Avenue are part of the Network Concept, not the Affordable Network.*

Response 2: This has been revised.

Comment 3: *Correct the description of 263 Greensway Avenue; the increase is approximately 50 person-trips, not vehicle trips.*

Response 3: This has been revised.

Comment 4: *112 Montreal Road and 314 Gardner Street - Use the TIA available on DevApps. It is unclear where the reference to the removal of two parking spaces on Montreal Road and the vehicle-trip projections come from.*

Response 4: This description has been revised.

Comment 5: *Given the projected volumes along the local road (Montgomery) justify the exemption of module 4.6.*

Response 5: The exemption has been removed and Module 4.6 has been included within the Strategy Report.

Comment 6: *Correct Table 5, 13, 22 and 23, there are tabulation errors. Correct the corresponding figures.*

PARSONS

Response 6: These have been revised.

Comment 7: *Justify the lower pass-by trip rate of the shopping centre given the size of the retail portion.*

Response 7: The pass-by trip assumption for the shopping centre is in line with average rates outlined in the ITE trip generation handbook, 9th Edition.

Comment 8: *Given that the retail and supermarket land uses are the ground floor of the apartment buildings, internalization factors should also be considered and applied.*

Response 8: A 15% multi-purpose trip reduction will be included for existing and projected scenarios.

Comment 9: *While inconsequential to the report, the pass-by rate was not applied correctly in Table 12.*

Response 9: This has been revised.

Comment 10: *Justify the pass-by rates applied to the existing development in Table 21. Both the AM and PM Peak hour reductions are low. See Appendix E of the Trip Generation Handbook 3rd Edition.*

Response 10: The pass-by trip assumption for the existing development is in line with average rates outlined in the ITE trip generation handbook, 9th Edition.

Comment 11: *Correct the mention of Phase 2 in Table 22.*

Response 11: This has been revised.

Comment 12: *Justify the trip distribution. Given the location of the proposed development, consideration should be given to increasing the trip percentage south and west.*

Response 12: The trip distribution reflects the patterns provided in the 2011 OD Survey. However, minor increase has been applied to the west and south directions during the peaks anticipated to have higher volumes due to commuter traffic.

Comment 13: *Correct Figure 13, the outbound new vehicles are underrepresented.*

Response 13: This has been revised.

Comment 14: *Provide a figure demonstrating the total site-generated vehicle volumes.*

Response 14: This Figure has been included within Section 3.3.

Comment 15: *Confirm the parking configuration in the Strategy report as it relates to the disparity between the volume distribution between the accesses, as well as, compliance with the private approach by-laws.*

Response 15: A description of the current parking provisions has been included in Section XX. Module 4.2 Parking will be included in the SPA as it is exempt for a ZBA.

Comment 16: *Ensure that Figure 16's site-generated volumes correspond with the volumes shown in Table 23.*

Response 16: This has been revised.

Comment 17: The demand rationalization module requires the inclusion of how much traffic volume requires rationalization to reach acceptable VLOS measurements.

Response 17: Noted.

1.2. TRAFFIC SIGNAL OPERATIONS

Comment 18: Include details and design for revitalized Montreal Road within study area. These should be included in the analysis, as the project is to be completed in 2022.

Response 18: The description of the Montreal Road Revitalization project has been revised to reflect the information that is currently on Ottawa.ca.

Comment 19: Confirm future transit lane and times (peak duration) along Montreal Road. This should be reflected in the analysis.

Response 19: Noted.

Comment 20: Include the collision history for Vanier Parkway and Montreal Road.

Response 20: This has been included.

Comment 21: Dates on Montreal Road project need to be revised.

Response 21: The dates have been revised.

Comment 22: Given the high cycling modal share please provide information on cycling facilities along the site frontage and the connectivity to existing facilities.

Response 22: Based on the Montreal Revitalization Landscape Plan, no cycling facilities are provided on Montreal Road between North River Road and Vanier Parkway. However, connectivity is provided along Mark Avenue with bi-directional bike paths connecting the facilities at the North River/Montreal and Vanier/Montreal intersections. See image below for reference.



Comment 23: Include all vehicle trips from other developments in the analysis.

Response 23: These have been included.

City of Ottawa 2017 TIA Guidelines

Date

20-Mar-20

TIA Screening Form

Project

29 Selkirk Street - Redevelopment

Project Number

908979-10012

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	Yes
Development Satisfies the Location Trigger	Yes
Development Satisfies the Safety Trigger	Yes

Module 1.1 - Description of Proposed Development	
Municipal Address	29 Selkirk Drive, Ottawa, Ontario
Description of location	Property is currently Eastview Shopping Centre located along the east side of North River Road, north side of Selkirk Street, and the west side of Montgomery Street.
Land Use	Proposed residential and commercial land use Zoned GM11 [175] F(3.0) H(42)
Development Size	3 residential towers totaling 1,003 units; a grocery store (23,400 sq. ft.); 3 commercial spaces (1,700 sq. ft., 3,600 sq. ft., and 5,500 sq. ft.)
Number of Accesses and Locations	2 proposed driveways - One on Montgomery Street and one North River Road, both located approximately midblock
Development Phasing	2 Phases (assumed)
Buildout Year	Phase 1 - 2022; Phase 2 - 2024
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger		
Land Use Type	Townhomes or Apartments	
Development Size	1,003	Units
Trip Generation Trigger Met?	Yes	

Module 1.3 - Location Triggers	
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks (See Sheet 3)	No
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone. (See Sheet 3)	Yes
Location Trigger Met?	Yes

Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	>80	km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No	
A proposed driveway is within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions) or within auxiliary lanes of an intersection;	Yes	
A proposed driveway makes use of an existing median break that serves an existing site	Yes	
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	Yes	
The development includes a drive-thru facility	No	
Safety Trigger Met?	Yes	

APPENDIX B

Traffic Data



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MCARTHUR AVE @ NORTH RIVER RD

Survey Date: Tuesday, March 19, 2019

WO No: 38447

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, March 19, 2019

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 1
 Eastbound: 0 Westbound: 0

1.00

NORTH RIVER RD

MCARTHUR AVE

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	2	67	20	89	287	56	5	348	437	1	5	0	6	12	11	110	133	139	576
08:00 09:00	3	125	29	157	332	102	4	438	595	1	6	3	10	8	9	165	182	192	787
09:00 10:00	6	125	18	149	201	107	2	310	459	0	4	2	6	11	5	103	119	125	584
11:30 12:30	5	122	22	149	228	119	4	351	500	1	5	3	9	10	3	131	144	153	653
12:30 13:30	4	112	28	144	241	109	5	355	499	4	6	1	11	14	2	138	154	165	664
15:00 16:00	2	148	36	186	409	139	1	549	735	4	25	6	35	24	11	217	252	287	1022
16:00 17:00	2	147	26	175	437	108	0	545	720	3	15	0	18	13	5	216	234	252	972
17:00 18:00	0	186	28	214	359	157	4	520	734	5	5	3	13	23	1	211	235	248	982
Sub Total	24	1032	207	1263	2494	897	25	3416	4679	19	71	18	108	115	47	1291	1453	1561	6240
U Turns				0				1	1				0				0	0	1
Total	24	1032	207	1263	2494	897	25	3417	4680	19	71	18	108	115	47	1291	1453	1561	6241
EQ 12Hr	33	1434	288	1756	3467	1247	35	4750	6505	26	99	25	150	160	65	1794	2020	2170	8675
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													1.39						
AVG 12Hr	31	1352	271	1655	3267	1175	33	4476	6505	25	93	24	141	151	62	1691	1903	2170	8675
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													1						
AVG 24Hr	41	1771	355	2167	4280	1539	43	5864	8031	33	122	31	185	197	81	2215	2493	2678	10709

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Turning Movement Count - Peak Hour Diagram

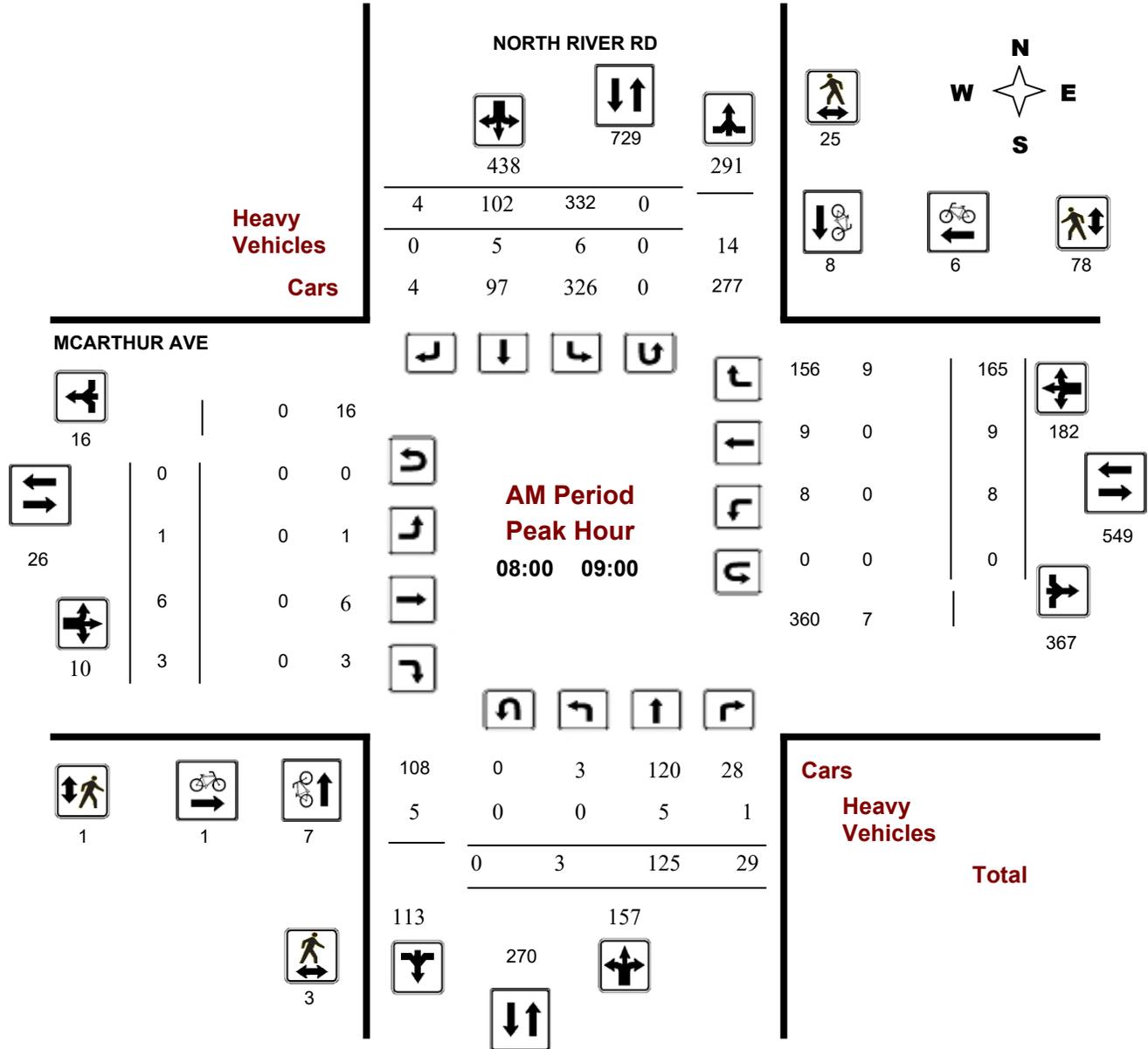
MCARTHUR AVE @ NORTH RIVER RD

Survey Date: Tuesday, March 19, 2019

Start Time: 07:00

WO No: 38447

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

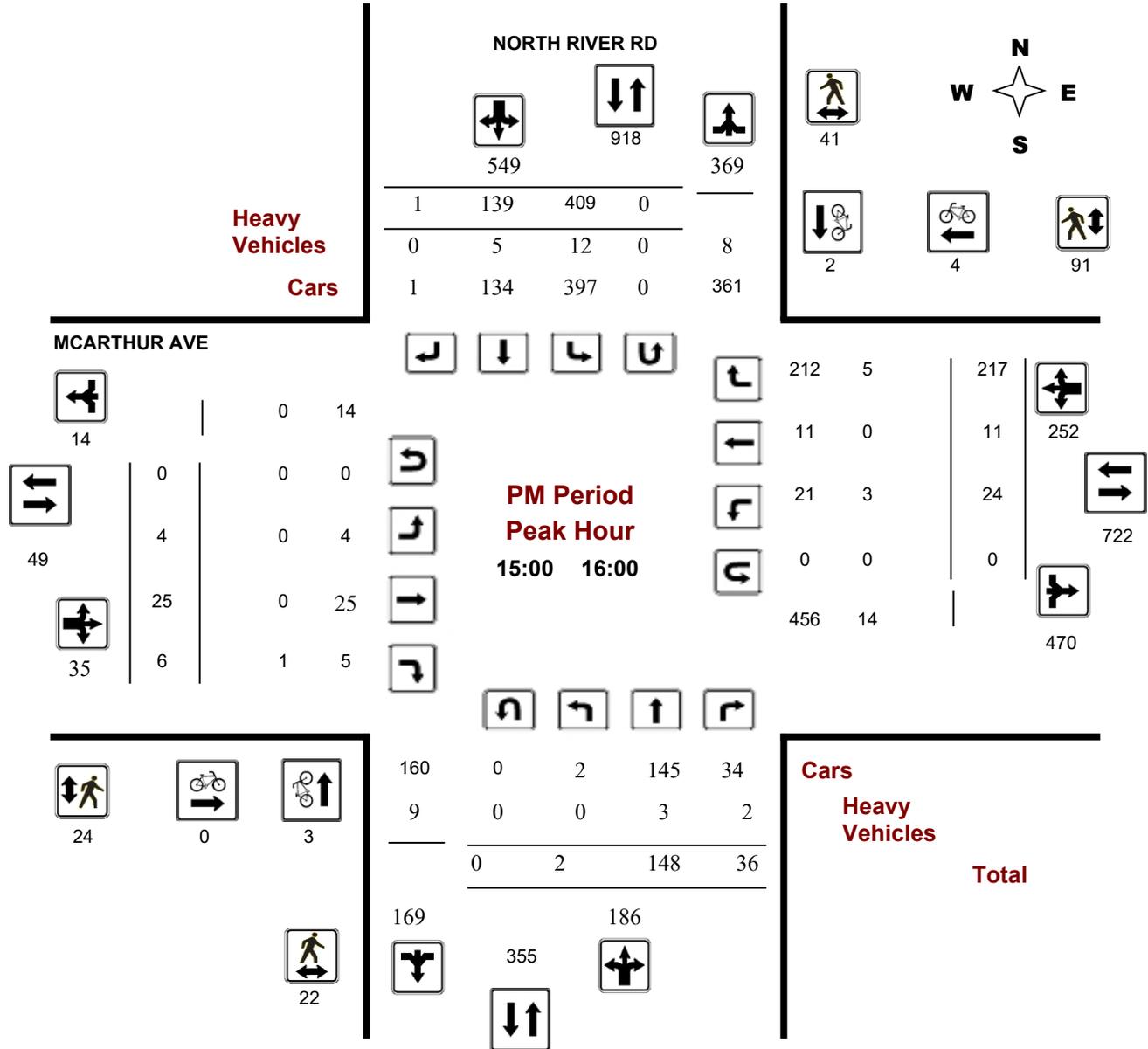
MCARTHUR AVE @ NORTH RIVER RD

Survey Date: Tuesday, March 19, 2019

Start Time: 07:00

WO No: 38447

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Study Results

MCARTHUR AVE @ VANIER PKWY

Survey Date: Tuesday, March 26, 2019

WO No: 38463

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, March 26, 2019

Total Observed U-Turns

AADT Factor

Northbound: 2 Southbound: 3
 Eastbound: 0 Westbound: 3

1.00

VANIER PKWY

MCARTHUR AVE

Period	VANIER PKWY Northbound					VANIER PKWY Southbound					MCARTHUR AVE Eastbound					MCARTHUR AVE Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	200	794	163	1157	2404	175	1027	45	1247	2404	19	106	186	311	770	201	162	96	459	770	3174
08:00 09:00	220	1044	225	1489	2896	140	1207	60	1407	2896	34	112	279	425	929	209	191	104	504	929	3825
09:00 10:00	202	923	195	1320	2591	80	1142	49	1271	2591	35	107	196	338	754	194	108	114	416	754	3345
11:30 12:30	135	867	199	1201	2279	87	941	50	1078	2279	31	129	240	400	815	204	129	82	415	815	3094
12:30 13:30	151	769	214	1134	2247	78	979	56	1113	2247	46	129	250	425	861	224	141	71	436	861	3108
15:00 16:00	200	1196	255	1651	2983	119	1148	65	1332	2983	54	231	477	762	1515	349	209	195	753	1515	4498
16:00 17:00	207	1144	271	1622	2845	103	1066	54	1223	2845	55	286	492	833	1434	245	216	140	601	1434	4279
17:00 18:00	190	1064	283	1537	2834	142	1097	58	1297	2834	55	235	381	671	1190	207	162	150	519	1190	4024
Sub Total	1505	7801	1805	11111	21079	924	8607	437	9968	21079	329	1335	2501	4165	8268	1833	1318	952	4103	8268	29347
U Turns				2	5				3	5				0	3				3	3	8
Total	1505	7801	1805	11113	21084	924	8607	437	9971	21084	329	1335	2501	4165	8271	1833	1318	952	4106	8271	29355
EQ 12Hr	2092	10843	2509	15447	29307	1284	11964	607	13860	29307	457	1856	3476	5789	11497	2548	1832	1323	5707	11497	40803
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																	1.39				
AVG 12Hr	1972	10219	2365	14558	29307	1210	11275	572	13062	29307	431	1749	3276	5456	11497	2401	1727	1247	5379	11497	40803
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																	1				
AVG 24Hr	2583	13387	3098	19071	36182	1586	14770	750	17111	36182	565	2291	4292	7148	14194	3146	2262	1634	7046	14194	50376
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.																	1.31				

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Turning Movement Count - Peak Hour Diagram

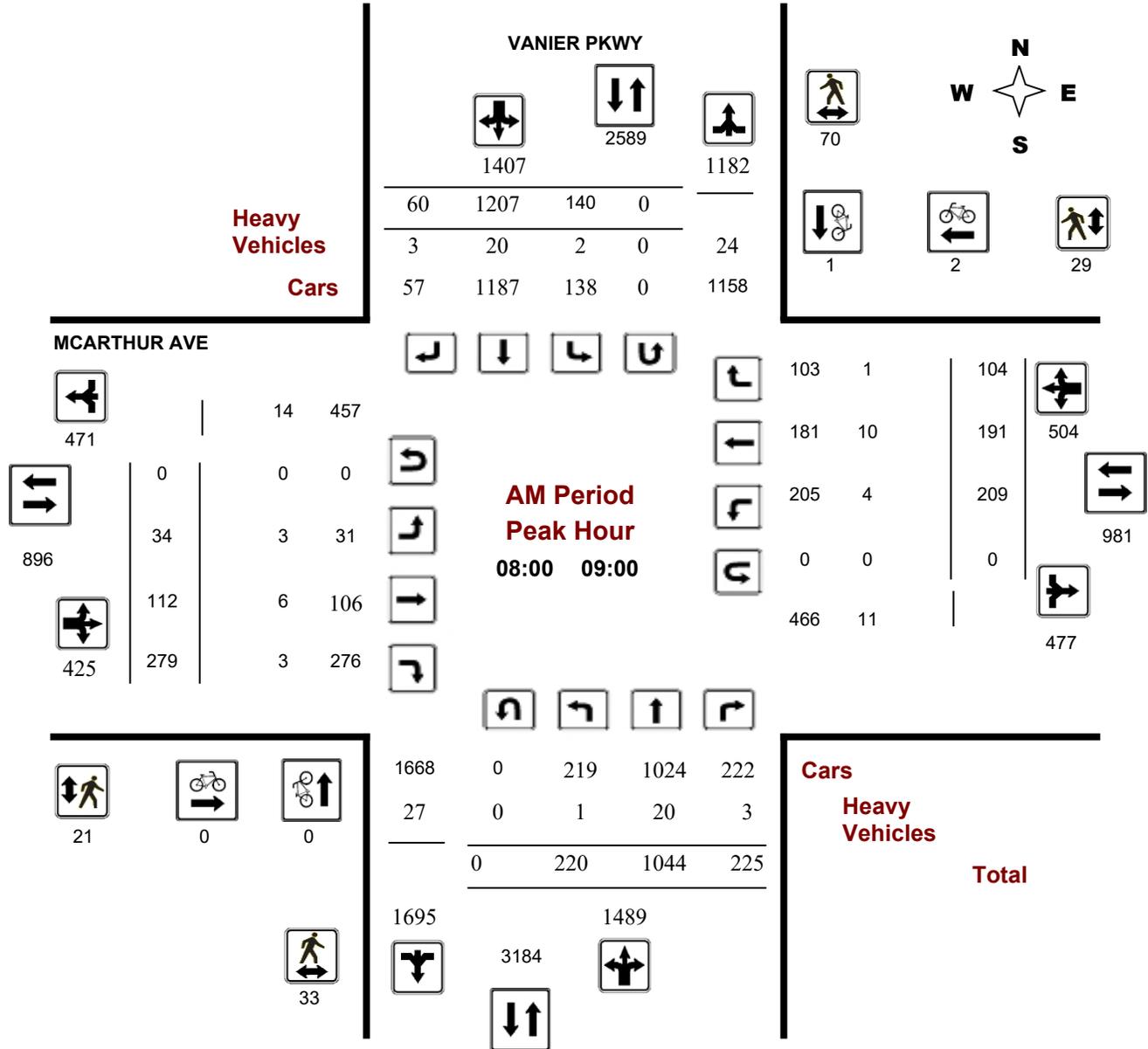
MCARTHUR AVE @ VANIER PKWY

Survey Date: Tuesday, March 26, 2019

Start Time: 07:00

WO No: 38463

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

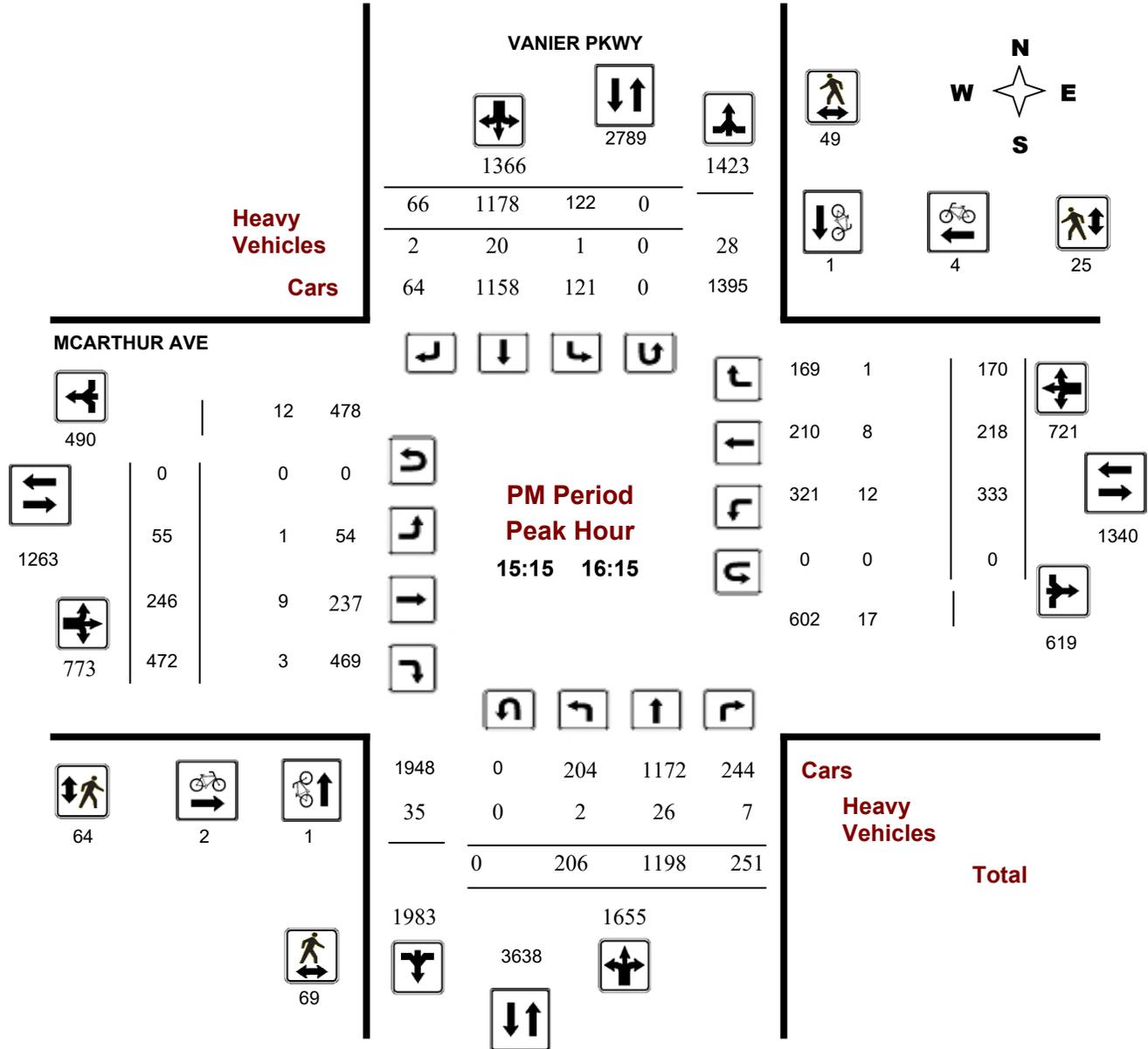
MCARTHUR AVE @ VANIER PKWY

Survey Date: Tuesday, March 26, 2019

Start Time: 07:00

WO No: 38463

Device: Miovision



Comments



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MONTGOMERY ST @ MONTREAL RD

Survey Date: Wednesday, February 19, 2020

WO No: 39501

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, February 19, 2020

Total Observed U-Turns
 Northbound: 0 Southbound: 0
 Eastbound: 1 Westbound: 1

AADT Factor
 1.00

MONTGOMERY ST

MONTREAL RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	WB TOT	STR TOT				
07:00 08:00	8	0	16	24	24	0	0	0	0	24	0	364	63	427	31	444	0	475	902	926	
08:00 09:00	20	0	34	54	54	0	0	0	0	54	0	443	88	531	42	670	0	712	1243	1297	
09:00 10:00	13	0	31	44	44	0	0	0	0	44	0	387	71	458	52	482	0	534	992	1036	
11:30 12:30	35	0	46	81	81	0	0	0	0	81	0	426	56	482	52	386	0	438	920	1001	
12:30 13:30	28	0	55	83	83	0	0	0	0	83	0	410	50	460	57	344	0	401	861	944	
15:00 16:00	105	0	66	171	171	0	0	0	0	171	0	540	78	618	53	594	0	647	1265	1436	
16:00 17:00	87	0	58	145	145	0	0	0	0	145	0	525	93	618	41	581	0	622	1240	1385	
17:00 18:00	56	0	49	105	105	0	0	0	0	105	0	540	81	621	31	505	0	536	1157	1262	
Sub Total	352	0	355	707	707	0	0	0	0	707	0	3635	580	4215	359	4006	0	4365	8580	9287	
U Turns				0	0				0	0				1				1	2	2	
Total	352	0	355	707	707	0	0	0	0	707	0	3635	580	4216	359	4006	0	4366	8582	9289	
EQ 12Hr	489	0	493	983	983	0	0	0	0	983	0	5053	806	5860	499	5568	0	6069	11929	12912	
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																1.39					
AVG 12Hr	461	0	465	926	926	0	0	0	0	926	0	4762	760	5523	470	5248	0	5719	11929	12912	
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																1					
AVG 24Hr	604	0	609	1213	1213	0	0	0	0	1213	0	6238	995	7235	616	6875	0	7492	14727	15940	

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. **1.31**

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Turning Movement Count - Peak Hour Diagram

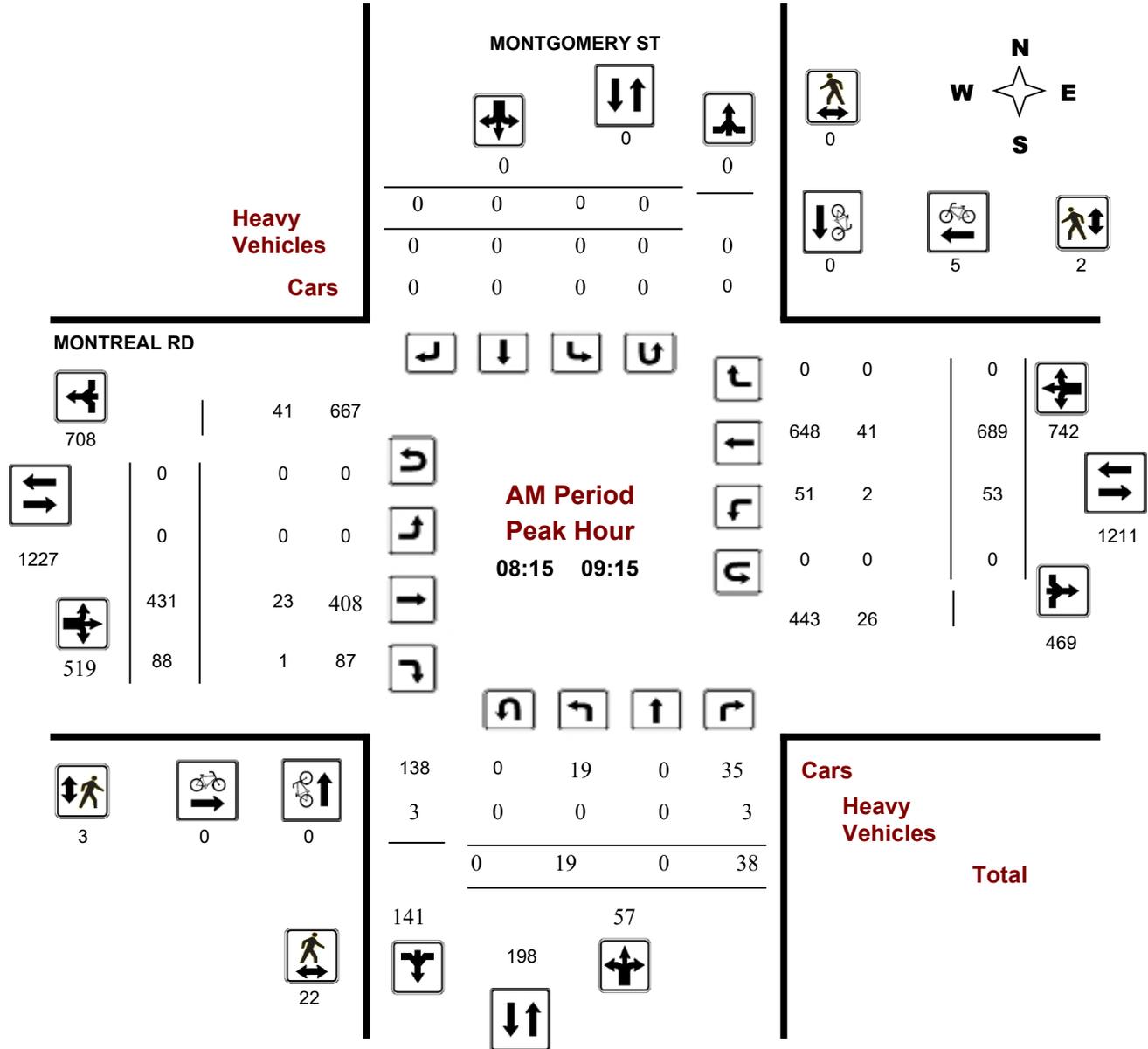
MONTGOMERY ST @ MONTREAL RD

Survey Date: Wednesday, February 19, 2020

Start Time: 07:00

WO No: 39501

Device: Miovision



Turning Movement Count - Peak Hour Diagram

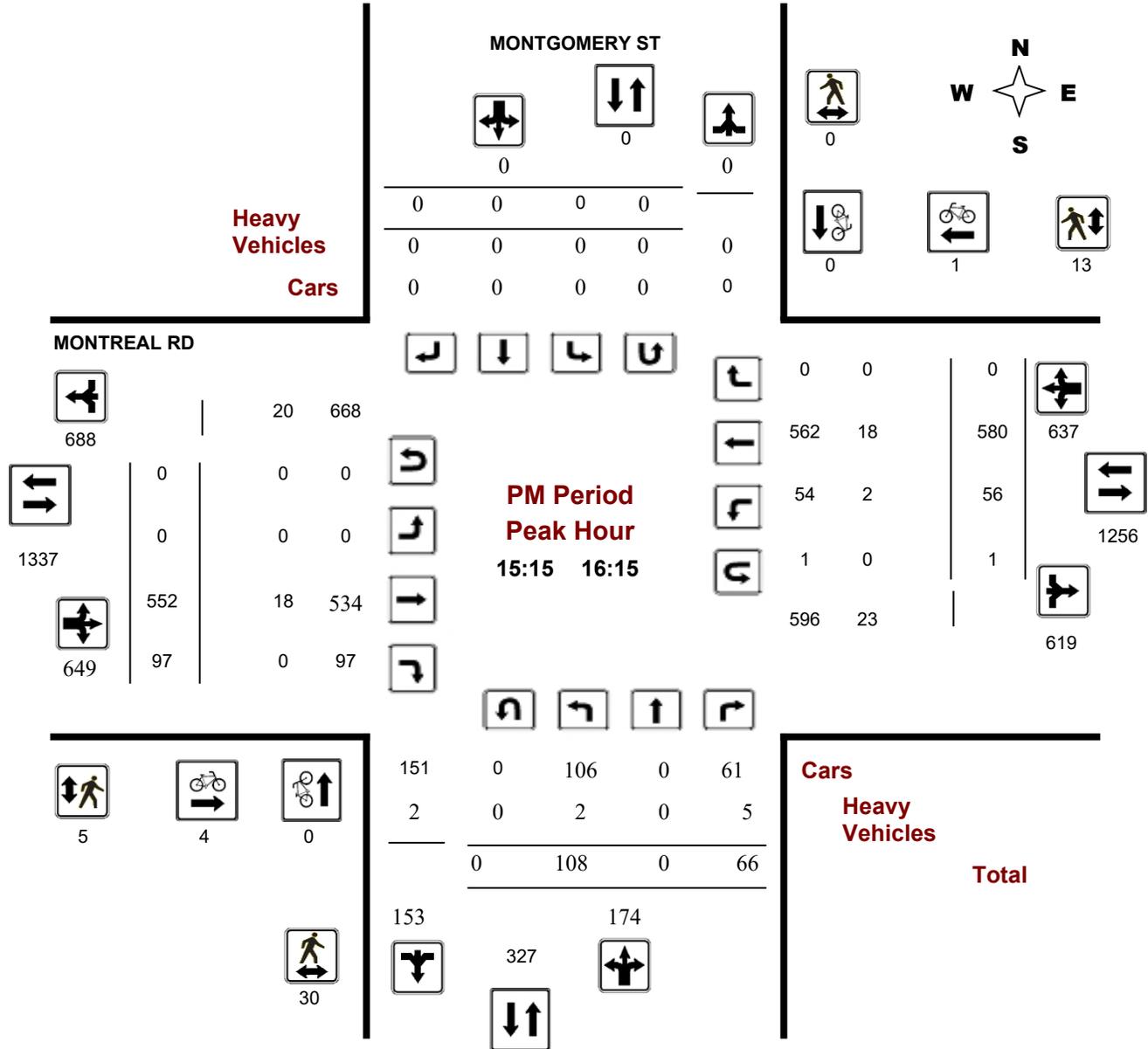
MONTGOMERY ST @ MONTREAL RD

Survey Date: Wednesday, February 19, 2020

Start Time: 07:00

WO No: 39501

Device: Miovision



Comments 5475439 - FEB 19, 2020 - 8HRS - CLARA JAJOU



Transportation Services - Traffic Services

Turning Movement Count - Study Results

MONTREAL RD @ NORTH RIVER RD

Survey Date: Tuesday, March 10, 2020

WO No: 39500

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, March 10, 2020

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 0
 Eastbound: 0 Westbound: 0

1.00

NORTH RIVER RD

MONTREAL RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT	STR TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	STR TOT	LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	157	11	14	182	240	19	21	18	58	240	2	373	265	640	1039	0	386	13	399	1039	1279
08:00 09:00	234	10	30	274	331	17	25	15	57	331	3	402	312	717	1315	0	585	13	598	1315	1646
09:00 10:00	184	16	28	228	283	18	19	18	55	283	8	412	230	650	1051	0	381	20	401	1051	1334
11:30 12:30	231	14	28	273	320	20	14	13	47	320	7	429	265	701	1059	3	333	22	358	1059	1379
12:30 13:30	232	13	30	275	315	11	19	10	40	315	7	384	288	679	1076	0	378	19	397	1076	1391
15:00 16:00	391	18	30	439	509	23	19	28	70	509	5	535	354	894	1524	1	605	24	630	1524	2033
16:00 17:00	335	17	39	391	432	12	9	20	41	432	3	601	353	957	1552	0	575	20	595	1552	1984
17:00 18:00	309	20	29	358	417	18	17	24	59	417	10	537	344	891	1363	1	446	25	472	1363	1780
Sub Total	2073	119	228	2420	2847	138	143	146	427	2847	45	3673	2411	6129	9979	5	3689	156	3850	9979	12826
U Turns				1	1				0	1				0	0				0	0	1
Total	2073	119	228	2421	2848	138	143	146	427	2848	45	3673	2411	6129	9979	5	3689	156	3850	9979	12827
EQ 12Hr	2881	165	317	3365	3959	192	199	203	594	3959	63	5105	3351	8519	13871	7	5128	217	5352	13871	17830
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																	1.39				
AVG 12Hr	2716	156	299	3172	3959	181	187	191	559	3959	59	4812	3158	8029	13871	7	4833	204	5044	13871	17830
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																	1				
AVG 24Hr	3557	204	391	4155	4888	237	245	251	733	4888	77	6303	4138	10518	17125	9	6331	268	6607	17125	22013
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.																	1.31				

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Turning Movement Count - Peak Hour Diagram

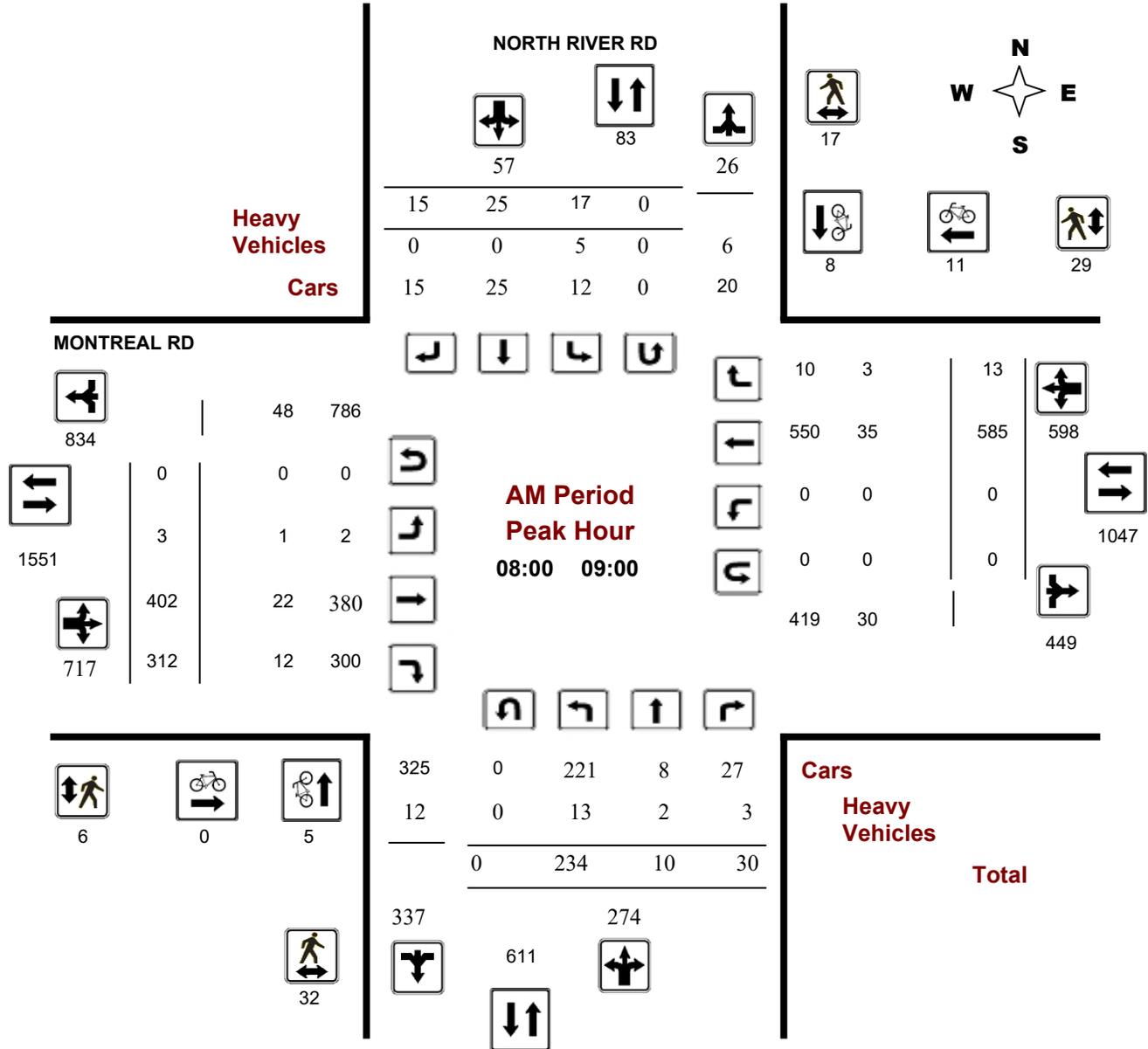
MONTREAL RD @ NORTH RIVER RD

Survey Date: Tuesday, March 10, 2020

Start Time: 07:00

WO No: 39500

Device: Miovision



Comments 5475438 - FEB 19, 2020 - 8HRS - CLARA JAJOU

Turning Movement Count - Peak Hour Diagram

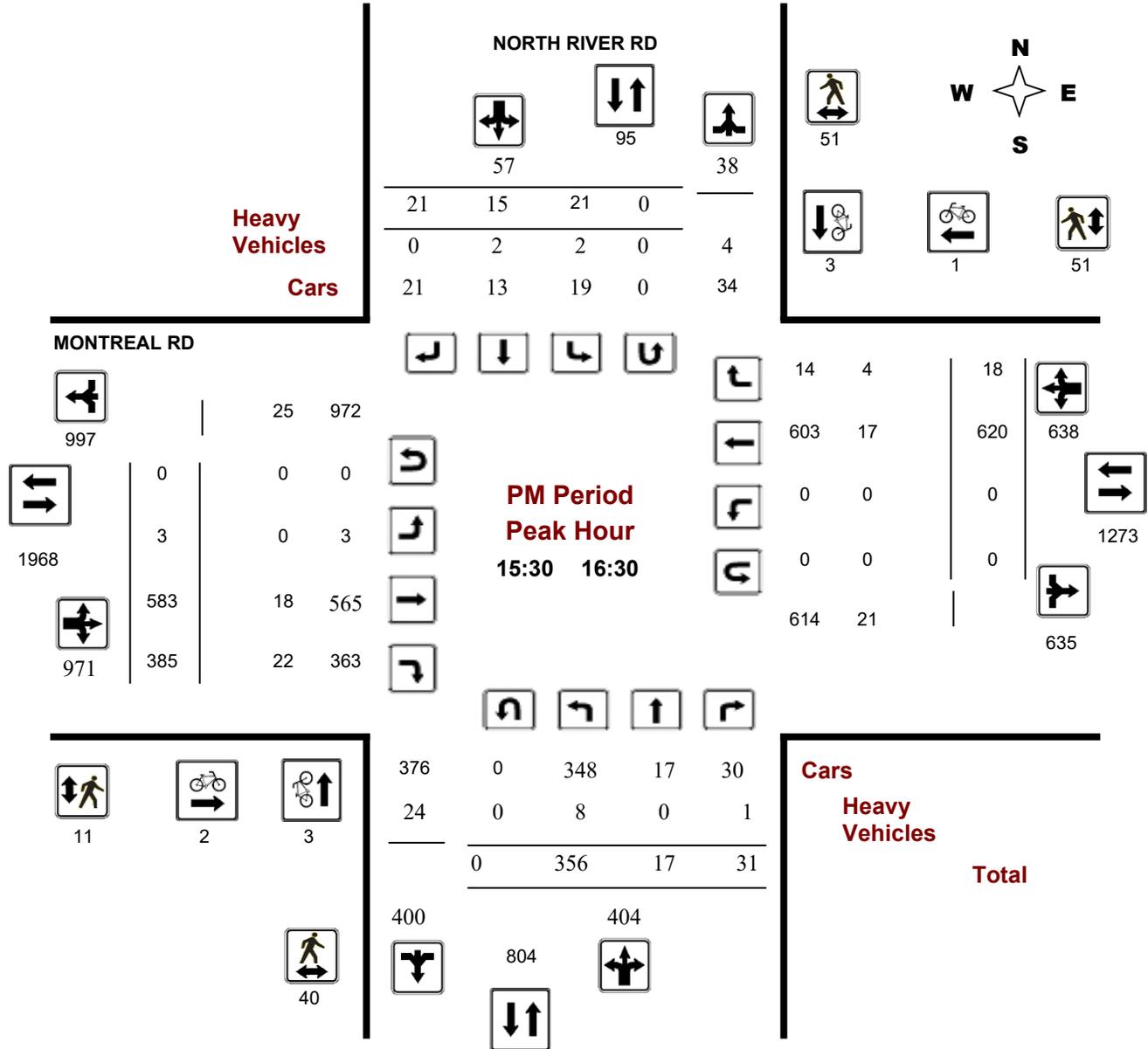
MONTREAL RD @ NORTH RIVER RD

Survey Date: Tuesday, March 10, 2020

Start Time: 07:00

WO No: 39500

Device: Miovision



APPENDIX C

City of Ottawa Collision Data



City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2014 **To:** December 31, 2018

Location: MCARTHUR AVE @ NORTH RIVER RD

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Jan-11, Sat,08:09	Rain	SMV other	P.D. only	Ice	West	Slowing or stopping	Pick-up truck	Pole (sign, parking meter)	
2015-Feb-02, Mon,09:04	Snow	Rear end	P.D. only	Packed snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2015-Mar-13, Fri,21:14	Clear	Angle	P.D. only	Dry	South	Turning left	Pick-up truck	Other motor vehicle	
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Feb-04, Wed,08:45	Snow	Rear end	P.D. only	Loose snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Jun-28, Sun,16:30	Rain	Rear end	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Pick-up truck	Other motor vehicle	
2016-Jan-14, Thu,13:36	Clear	Rear end	P.D. only	Wet	West	Slowing or stopping	Pick-up truck	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	

2016-Nov-18, Fri,06:40	Clear	Turning movement	Non-fatal injury	Dry	South	Overtaking	Automobile, station wagon	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle
2017-Dec-24, Sun,02:48	Clear	Sideswipe	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle
2018-Feb-05, Mon,16:22	Clear	Turning movement	P.D. only	Ice	South	Turning left	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Jun-12, Tue,07:49	Clear	Turning movement	P.D. only	Dry	South	Turning left	Pick-up truck	Other motor vehicle
					North	Going ahead	Pick-up truck	Other motor vehicle
2018-Sep-09, Sun,17:32	Clear	Angle	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Cyclist
					South	Going ahead	Bicycle	Other motor vehicle
2018-Dec-19, Wed,12:21	Clear	Rear end	Non-fatal injury	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Municipal transit bus	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

Location: MCARTHUR AVE @ VANIER PKWY

Traffic Control: Traffic signal

Total Collisions: 94

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
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2014-Jan-07, Tue, 17:20	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

2014-Jan-05, Sun, 13:09	Snow	Rear end	P.D. only	Loose snow	South	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle

2014-May-07, Wed, 18:30	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle
					West	Turning right	Automobile, station wagon	Other motor vehicle

2014-May-30, Fri, 19:00	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

2014-Jun-02, Mon, 10:30	Clear	Turning movement	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle

2014-Jul-01, Tue, 17:37	Clear	Angle	Non-fatal injury	Wet	West	Going ahead	Bicycle	Other motor vehicle
					North	Turning left	Automobile, station wagon	Cyclist

2014-Jul-02, Wed, 17:22	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle

					North	Stopped	Automobile, station wagon	Other motor vehicle
2014-Aug-06, Wed,17:06	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Pick-up truck	Other motor vehicle
2014-Jul-26, Sat,15:00	Clear	Rear end	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle
					East	Turning left	Automobile, station wagon	Other motor vehicle
2014-Nov-04, Tue,15:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle
2014-Nov-18, Tue,09:38	Clear	Rear end	P.D. only	Ice	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2014-Oct-06, Mon,10:00	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle
2014-Aug-18, Mon,15:05	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle
					West	Turning right	Pick-up truck	Other motor vehicle

2014-Oct-19, Sun,16:00	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle
					North	Turning right	Pick-up truck	Other motor vehicle

2014-Jan-15, Wed,15:25	Clear	Turning movement	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Turning left	Passenger van	Other motor vehicle

2014-Oct-03, Fri,16:03	Clear	Rear end	P.D. only	Dry	North	Going ahead	Motorcycle	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle

2015-Feb-06, Fri,10:25	Clear	Angle	P.D. only	Slush	North	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle

2015-Feb-13, Fri,17:40	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle

2015-Jul-15, Wed,18:25	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle

2015-Jan-07, Wed,08:44	Snow	Other	P.D. only	Packed snow	West	Turning left	Automobile, station wagon	Curb
					North	Stopped	Automobile, station wagon	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle

2015-Jan-17, Sat,22:30	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Unknown	Other motor vehicle
					West	Turning right	Automobile, station wagon	Other motor vehicle
2014-Dec-22, Mon,15:45	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					North	Turning left	Pick-up truck	Other motor vehicle
2014-Nov-06, Thu,09:50	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Delivery van	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle
2015-Sep-12, Sat,12:50	Rain	Sideswipe	P.D. only	Wet	North	Overtaking	Unknown	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2015-Aug-17, Mon,14:05	Clear	Rear end	P.D. only	Dry	North	Going ahead	Delivery van	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2015-Jan-29, Thu,19:15	Snow	Sideswipe	Non-fatal injury	Loose snow	North	Changing lanes	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Pick-up truck	Other motor vehicle
2015-Feb-02, Mon,10:30	Snow	Rear end	P.D. only	Packed snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle

2015-Jun-28, Sun,17:03	Rain	Rear end	Non-fatal injury	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Automobile, station wagon	Other motor vehicle
2015-Dec-30, Wed,08:06	Drifting Snow	Angle	P.D. only	Wet	North	Turning right	Passenger van	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle
2015-Nov-18, Wed,20:23	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2016-Aug-25, Thu,18:30	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle
2016-Jan-29, Fri,12:44	Snow	Rear end	P.D. only	Wet	West	Slowing or stopping	Pick-up truck	Other motor vehicle
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2016-Sep-21, Wed,22:43	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2016-Jan-31, Sun,10:29	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Turning left	Pick-up truck	Other motor vehicle

2016-Feb-09, Tue,14:30	Clear	Angle	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2016-Oct-24, Mon,13:02	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle
					East	Turning right	Municipal transit bus	Other motor vehicle
2015-Oct-08, Thu,15:47	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2015-Mar-24, Tue,13:57	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Passenger van	Other motor vehicle
					South	Going ahead	Pick-up truck	Other motor vehicle
2015-Dec-13, Sun,13:49	Clear	Angle	P.D. only	Dry	East	Turning right	Passenger van	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2015-Dec-31, Thu,15:25	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2015-Dec-25, Fri,20:03	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Passenger van	Other motor vehicle

2016-Apr-12, Tue,01:17	Clear	Angle	Fatal injury	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2016-Jul-29, Fri,11:20	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2016-Mar-22, Tue,12:06	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2016-Jul-12, Tue,12:07	Clear	Rear end	Non-fatal injury	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2016-Jun-29, Wed,12:55	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2016-Jul-02, Sat,17:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2016-Apr-20, Wed,23:33	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle

2016-May-18, Wed,13:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2016-Jul-21, Thu,16:59	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Pick-up truck	Other motor vehicle
2016-Nov-01, Tue,15:20	Clear	Rear end	Non-fatal injury	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2016-Nov-04, Fri,07:20	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle
2016-Nov-22, Tue,19:06	Clear	Rear end	P.D. only	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle
2016-Oct-20, Thu,08:38	Rain	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle

2016-Oct-12, Wed,10:38	Clear	Rear end	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle
					North	Turning left	Automobile, station wagon	Other motor vehicle
2017-Aug-25, Fri,16:04	Clear	Angle	P.D. only	Dry	West	Turning right	Delivery van	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Aug-15, Tue,14:50	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle
					West	Turning right	Automobile, station wagon	Other motor vehicle
2017-Aug-24, Thu,10:05	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Sep-01, Fri,15:36	Clear	Sideswipe	P.D. only	Dry	South	Overtaking	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-Feb-08, Wed,10:09	Snow	Rear end	P.D. only	Wet	East	Slowing or stopping	Pick-up truck	Other motor vehicle
					East	Stopped	Snow plow	Other motor vehicle
2016-Dec-13, Tue,07:45	Clear	Sideswipe	P.D. only	Slush	West	Changing lanes	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle

2017-Mar-06, Mon,12:22	Clear	Rear end	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Pick-up truck	Other motor vehicle

2017-Jan-31, Tue,08:29	Clear	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle

2017-Mar-08, Wed,08:13	Freezing Rain	Rear end	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle

2017-Mar-23, Thu,07:29	Clear	Rear end	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

2017-Apr-28, Fri,15:30	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle

2017-Apr-15, Sat,16:55	Rain	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Unknown	Unknown	Other motor vehicle

2017-May-11, Thu,06:20	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Pick-up truck	Other motor vehicle

2017-Jun-07, Wed,11:14	Clear	Rear end	P.D. only	Dry	South	Going ahead	Passenger van	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-Jun-14, Wed,22:00	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Municipal transit bus	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-Jun-15, Thu,23:24	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Jun-24, Sat,16:15	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Passenger van	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Sep-09, Sat,13:23	Clear	Rear end	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2017-Dec-04, Mon,19:29	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2017-Jul-11, Tue,12:49	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Passenger van	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

2017-Jul-26, Wed,09:25	Clear	Rear end	P.D. only	Dry	North	Going ahead	Delivery van	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2017-Dec-31, Sun,21:00	Snow	Rear end	P.D. only	Ice	South	Slowing or stopping	Passenger van	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-Nov-25, Sat,11:40	Rain	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Slowing or stopping	Pick-up truck	Other motor vehicle
2017-Nov-24, Fri,17:15	Clear	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Pick-up truck	Other motor vehicle
2018-Jan-05, Fri,20:41	Clear	Rear end	P.D. only	Wet	North	Going ahead	Passenger van	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2017-Dec-08, Fri,14:08	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2017-Dec-16, Sat,15:30	Clear	Rear end	P.D. only	Slush	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle

2018-Feb-07, Wed,11:15	Snow	Rear end	P.D. only	Packed snow	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2018-Mar-03, Sat,14:14	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2018-May-30, Wed,12:42	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2018-Jun-08, Fri,02:15	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Nov-23, Fri,11:19	Clear	Rear end	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle
2018-Oct-27, Sat,13:08	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2018-Jul-26, Thu,18:15	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle

2018-Nov-05, Mon,13:00	Rain	Rear end	Non-fatal injury	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle

2018-Oct-29, Mon,18:18	Rain	Rear end	P.D. only	Wet	East	Merging	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle

2018-Aug-21, Tue,17:46	Rain	Rear end	P.D. only	Wet	North	Going ahead	Unknown	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle

2018-Aug-14, Tue,15:21	Rain	SMV other	P.D. only	Wet	North	Pulling onto shoulder or toward curb	Automobile, station wagon	Ran off road
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2018-Dec-22, Sat,05:01	Snow	SMV other	P.D. only	Packed snow	East	Going ahead	Automobile, station wagon	Other
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Location: MONTGOMERY ST @ MONTREAL RD

Traffic Control: Traffic signal

Total Collisions: 13

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2014-Apr-17, Thu,12:04	Clear	SMV other	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Pedestrian	1
2014-Jan-28, Tue,18:33	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Pedestrian	1
2015-Jan-10, Sat,11:05	Clear	Rear end	P.D. only	Slush	West	Slowing or stopping	Pick-up truck	Other motor vehicle	

					West	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Feb-17, Tue, 16:56	Clear	Turning movement	P.D. only	Wet	West	Turning left	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Aug-19, Wed, 15:37	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Dec-23, Wed, 17:41	Rain	SMV other	Non-fatal injury	Wet	West	Turning left	Automobile, station wagon	Pedestrian	1
2016-May-18, Wed, 12:41	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Pick-up truck	Other motor vehicle	
2016-Jun-01, Wed, 16:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-17, Thu, 16:10	Rain	Sideswipe	P.D. only	Wet	West	Changing lanes	Passenger van	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-09, Thu, 09:50	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	

2017-Sep-06, Wed,15:55	Clear	Sideswipe	Non-fatal injury	Dry	West	Changing lanes	Automobile, station wagon	Cyclist	
					West	Going ahead	Bicycle	Other motor vehicle	
2017-Dec-08, Fri,20:49	Clear	SMV other	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Pedestrian	1
2018-Oct-18, Thu,13:02	Clear	Sideswipe	P.D. only	Dry	East	Merging	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: MONTGOMERY ST @ SELKIRK ST

Traffic Control: Stop sign

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-16, Sat,09:41	Snow	Turning movement	P.D. only	Loose snow	North	Making "U" turn	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: MONTGOMERY ST btwn MONTREAL RD & SELKIRK ST

Traffic Control: No control

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-May-20, Fri,15:25	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Dec-16, Fri,18:32	Snow	Angle	P.D. only	Loose snow	East	Turning left	Passenger van	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	

Location: MONTREAL RD @ NORTH RIVER RD

Traffic Control: Traffic signal

Total Collisions: 33

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Aug-05, Tue,15:04	Clear	Rear end	Non-fatal injury	Dry	West	Slowing or stopping	Passenger van	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Oct-29, Wed,18:24	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2014-Nov-03, Mon,11:52	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Nov-17, Mon,17:50	Rain	Rear end	P.D. only	Slush	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Apr-04, Sat,19:54	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

2015-Sep-19, Sat,18:03	Clear	Turning movement	P.D. only	Dry	East	Turning right	Delivery van	Other motor vehicle	
					East	Going ahead	Pick-up truck	Other motor vehicle	
2016-Feb-27, Sat,23:21	Clear	Angle	Non-fatal injury	Wet	West	Going ahead	Pick-up truck	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Oct-19, Wed,10:53	Clear	SMV other	Non-fatal injury	Dry	South	Turning right	Unknown	Pedestrian	1
2015-Jul-20, Mon,11:40	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Truck - closed	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Aug-23, Sun,05:20	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Curb	
2016-Mar-11, Fri,21:33	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Apr-06, Wed,19:20	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Apr-06, Wed,18:58	Snow	Rear end	Non-fatal injury	Packed snow	East	Going ahead	Passenger van	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	

					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-01, Mon,04:33	Clear	Approaching	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Apr-19, Tue,06:13	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Construction equipment	Other motor vehicle	
					East	Slowing or stopping	Pick-up truck	Other motor vehicle	
2016-May-20, Fri,00:55	Clear	SMV other	P.D. only	Dry	East	Turning right	Automobile, station wagon	Pole (utility, power)	
2016-Oct-14, Fri,21:54	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Nov-20, Sun,15:00	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Nov-05, Sun,16:14	Rain	Turning movement	P.D. only	Wet	East	Turning left	Passenger van	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-28, Mon,17:52	Clear	SMV other	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Pedestrian	1

2017-Feb-23, Thu,22:34	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Turning left	Delivery van	Other motor vehicle
2016-Dec-19, Mon,17:49	Clear	Angle	P.D. only	Wet	East	Turning right	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2017-Feb-27, Mon,10:06	Clear	SMV other	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Skidding/sliding
2017-Apr-27, Thu,16:31	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Municipal transit bus	Other motor vehicle
2017-Apr-08, Sat,01:07	Clear	Other	P.D. only	Dry	West	Reversing	Automobile, station wagon	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle
2017-Dec-06, Wed,20:00	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Jan-31, Wed,20:06	Snow	Sideswipe	P.D. only	Loose snow	West	Changing lanes	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Apr-14, Sat,04:39	Clear	SMV other	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Building or wall

2018-Sep-14, Fri,20:45	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2018-Sep-06, Thu,21:38	Clear	Turning movement	P.D. only	Dry	East	Turning left	Truck - closed	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Jun-25, Mon,18:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2018-Jul-18, Wed,22:59	Clear	SMV other	Non-fatal injury	Dry	East	Turning right	Automobile, station wagon	Pole (sign, parking meter)
2016-Sep-07, Wed,15:24	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle

Location: MONTREAL RD btwn NORTH RIVER RD & MONTGOMERY ST

Traffic Control: No control

Total Collisions: 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2014-Feb-09, Sun,22:00	Snow	Turning movement	P.D. only	Loose snow	West	Turning right	Pick-up truck	Other motor vehicle	
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Mar-12, Thu,16:07	Clear	Turning movement	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	
					East	Going ahead	Pick-up truck	Other motor vehicle	

2016-Jun-03, Fri,17:45	Clear	Angle	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle
2016-Mar-12, Sat,17:10	Clear	Sideswipe	Non-fatal injury	Dry	East	Stopped	Unknown	Cyclist
					East	Going ahead	Bicycle	Other motor vehicle
2018-Jun-13, Wed,16:01	Rain	Sideswipe	P.D. only	Wet	West	Unknown	Automobile, station wagon	Other motor vehicle
					West	Unknown	Automobile, station wagon	Other motor vehicle
2018-Dec-14, Fri,02:05	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Ran off road
2018-Aug-27, Mon,19:24	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle
2018-Nov-09, Fri,16:56	Snow	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Stopped	Municipal transit bus	Other motor vehicle

Location: NORTH RIVER RD @ SELKIRK ST

Traffic Control: Stop sign

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jun-30, Tue,17:39	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: NORTH RIVER RD btwn MONTREAL RD & SELKIRK ST

Traffic Control: No control

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Oct-04, Sat,16:35	Rain	Turning movement	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Sep-19, Mon,15:36	Clear	SMV other	P.D. only	Dry	West	Turning left	Automobile, station wagon	Curb	
2017-Apr-18, Tue,14:56	Clear	SMV other	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Curb	
2018-Aug-08, Wed,19:07	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: NORTH RIVER RD btwn SELKIRK ST & MCARTHUR AVE

Traffic Control: No control

Total Collisions: 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2015-Sep-18, Fri,19:19	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jun-19, Fri,13:24	Clear	Turning movement	P.D. only	Dry	South	Turning left	Pick-up truck	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Nov-30, Thu,16:00	Rain	Turning movement	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	

North Going ahead Automobile,
station wagon Other motor
vehicle

Location: SELKIRK ST btwn NORTH RIVER RD & DUNDAS ST

Traffic Control: No control

Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Feb-02, Thu,18:22	Clear	Angle	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-09, Fri,14:30	Snow	Angle	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



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Location: MONTREAL RD @ VANIER PKWY

Traffic Control: Traffic signal

Total Collisions: 126

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Jan-17, Fri,20:40	Clear	Turning movement	P.D. only	Wet	East	Turning right	Delivery van	Other motor vehicle	
					East	Going ahead	Municipal transit bus	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Feb-06, Thu,14:12	Clear	Angle	P.D. only	Dry	North	Turning right	Pick-up truck	Other motor vehicle	
					East	Going ahead	Municipal transit bus	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Feb-25, Tue,07:23	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Feb-26, Wed,08:33	Clear	Rear end	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	
					North	Slowing or stopping	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Mar-28, Fri,15:20	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Apr-05, Sat,11:35	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-May-12, Mon,14:45	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Jun-05, Thu,08:47	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Jun-21, Sat,19:15	Clear	Rear end	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Turning right	Passenger van	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Jun-24, Tue,15:00	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	



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2014-Jul-06, Sun,21:40	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2014-Aug-19, Tue,00:56	Clear	Turning movement	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Pick-up truck	Other motor vehicle	
2014-Aug-24, Sun,14:00	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2014-Sep-02, Tue,20:35	Rain	Rear end	Non-fatal injury	Wet	North	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2014-Sep-08, Mon,08:30	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Sep-17, Wed,12:13	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Oct-04, Sat,08:10	Rain	Sideswipe	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Oct-17, Fri,11:27	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Oct-18, Sat,10:41	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Nov-08, Sat,00:05	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Nov-11, Tue,20:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Nov-12, Wed,09:08	Clear	Rear end	P.D. only	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Slowing or stopping	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Nov-24, Mon,14:54	Clear	Other	Non-fatal injury	Dry	South	Reversing	Unknown	Other motor vehicle	
					North	Turning left	Passenger van	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Nov-28, Fri,12:02	Clear	Rear end	P.D. only	Dry	North	Unknown	Pick-up truck	Other motor vehicle	
					North	Unknown	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Dec-21, Sun,19:31	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2014-Dec-27, Sat,03:15	Clear	Rear end	Non-fatal injury	Wet	South	Turning left	Pick-up truck	Other motor vehicle	
					South	Turning left	Pick-up truck	Other motor vehicle	
									0
2015-Jan-05, Mon,19:29	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2015-Jan-08, Thu,13:30	Clear	Angle	P.D. only	Packed snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2015-Jan-08, Thu,19:40	Snow	Rear end	P.D. only	Loose snow	North	Slowing or stopping	Passenger van	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
									0
2015-Jan-14, Wed,07:40	Clear	Rear end	P.D. only	Ice	South	Slowing or stopping	Pick-up truck	Skidding/sliding	
					South	Slowing or stopping	Automobile, station wagon	Skidding/sliding	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2015-Jan-22, Thu,08:20	Clear	Turning movement	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2015-Feb-14, Sat,16:45	Snow	Rear end	P.D. only	Slush	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Mar-21, Sat,14:07	Snow	Rear end	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Pick-up truck	Other motor vehicle	
2015-Mar-24, Tue,15:46	Clear	SMV other	P.D. only	Dry	East	Going ahead	Passenger van	Ran off road	0
2015-Apr-10, Fri,00:08	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2015-Apr-19, Sun,00:00	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Pedestrian	1



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									0
2015-Apr-21, Tue,08:35	Rain	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
									0
2015-Apr-24, Fri,12:30	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
									0
2015-May-22, Fri,16:15	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Delivery van	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2015-Jun-06, Sat,10:21	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2015-Jun-10, Wed,21:20	Rain	Angle	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	
					North	Changing lanes	Municipal transit bus	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2015-Jun-11, Thu,11:07	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Changing lanes	Automobile, station wagon	Other motor vehicle	
									0
2015-Jul-09, Thu,21:17	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2015-Nov-10, Tue,07:00	Fog, mist, smoke, dust	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
									0
2015-Dec-09, Wed,00:18	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2015-Dec-28, Mon,11:24	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle	
					West	Turning right	Automobile, station wagon	Other motor vehicle	
									0
2016-Jan-02, Sat,08:58	Snow	Rear end	P.D. only	Loose snow	North	Going ahead	Pick-up truck	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2016-Jan-04, Mon,07:25	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2016-Jan-14, Thu,17:19	Clear	Sideswipe	P.D. only	Wet	East	Going ahead	Construction equipment	Other motor vehicle	
					East	Turning left	Pick-up truck	Other motor vehicle	
									0
2016-Jan-27, Wed,23:43	Clear	Turning movement	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	
					South	Turning left	Pick-up truck	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-05, Fri,09:59	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-17, Wed,20:56	Clear	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-17, Wed,22:23	Clear	Other	P.D. only	Ice	North	Turning right	Delivery van	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-22, Mon,12:15	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Mar-24, Thu,18:51	Clear	Turning movement	P.D. only	Slush	North	Turning left	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-02, Sat,10:00	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Delivery van	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-08, Fri,03:00	Clear	Other	P.D. only	Wet	West	Reversing	Snow plow	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-15, Fri,15:34	Clear	SMV other	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Pedestrian	1
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-23, Sat,20:43	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-25, Mon,11:10	Clear	SMV other	Non-fatal injury	Dry	North	Turning left	Police vehicle	Pedestrian	1
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Apr-25, Mon,21:01	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



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Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-May-30, Mon,13:27	Clear	Angle	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Passenger van	Other motor vehicle	
2016-Jun-11, Sat,23:58	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-15, Wed,19:43	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-18, Mon,12:12	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Aug-02, Tue,10:35	Clear	Rear end	Non-fatal injury	Dry	West	Slowing or stopping	Passenger van	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	



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									0
2016-Aug-18, Thu,18:30	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	
					West	Turning right	Automobile, station wagon	Other motor vehicle	
									0
2016-Sep-04, Sun,03:25	Clear	Rear end	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
									0
2016-Sep-05, Mon,12:32	Clear	Rear end	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2016-Sep-28, Wed,08:52	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
									0
2016-Oct-25, Tue,13:40	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Nov-06, Sun,08:43	Clear	Sideswipe	Non-fatal injury	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	1
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Nov-23, Wed,16:34	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Nov-26, Sat,00:17	Clear	SMV other	Non-fatal injury	Wet	West	Turning right	Automobile, station wagon	Pedestrian	1
2016-Dec-02, Fri,19:05	Clear	Angle	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Dec-08, Thu,16:59	Snow	SMV other	Non-fatal injury	Wet	East	Turning right	Unknown	Pedestrian	1
2016-Dec-17, Sat,15:03	Snow	Rear end	P.D. only	Slush	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Dec-19, Mon,16:30	Snow	Sideswipe	Non-fatal injury	Slush	North	Changing lanes	Pick-up truck	Other motor vehicle	1
					North	Going ahead	Delivery van	Other motor vehicle	
2016-Dec-27, Tue,22:36	Clear	Angle	P.D. only	Dry	East	Going ahead	Police vehicle	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2017-Feb-10, Fri,20:15	Snow	Sideswipe	P.D. only	Wet	West	Changing lanes	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-21, Tue,16:41	Rain	Sideswipe	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2017-Mar-24, Fri,23:30	Clear	Rear end	P.D. only	Loose snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2017-May-02, Tue,08:16	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2017-May-02, Tue,15:38	Rain	Rear end	P.D. only	Wet	South	Going ahead	Passenger van	Other motor vehicle	
					South	Slowing or stopping	Pick-up truck	Other motor vehicle	
									0
2017-May-15, Mon,10:04	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2017-May-15, Mon,10:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2017-May-25, Thu,08:05	Clear	Sideswipe	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-May-30, Tue,08:26	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Truck - closed	Other motor vehicle	0
					East	Stopped	Municipal transit bus	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-May-30, Tue,09:13	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Jun-14, Wed,18:12	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Ambulance	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Jun-16, Fri,21:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Jul-21, Fri,15:27	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Aug-19, Sat,16:35	Clear	Sideswipe	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Changing lanes	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Aug-25, Fri,23:12	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Sep-26, Tue,10:51	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Oct-16, Mon,06:21	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Nov-01, Wed,19:26	Rain	Turning movement	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2017-Nov-07, Tue,13:10	Clear	Rear end	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2017-Nov-11, Sat,21:07	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									1
2017-Nov-17, Fri,05:48	Snow	SMV other	Non-fatal injury	Loose snow	West	Turning left	Automobile, station wagon	Pedestrian	
									0
2017-Nov-28, Tue,16:48	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2017-Dec-20, Wed,22:46	Snow	Rear end	P.D. only	Loose snow	West	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Unknown	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2018-Jan-02, Tue,19:35	Snow	Sideswipe	P.D. only	Loose snow	East	Changing lanes	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2018-Jan-03, Wed,16:00	Snow	Rear end	Non-fatal injury	Slush	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2018-Jan-17, Wed,19:16	Clear	Sideswipe	P.D. only	Slush	West	Changing lanes	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Municipal transit bus	Other motor vehicle	
									0
2018-Jan-31, Wed,18:13	Snow	Rear end	P.D. only	Loose snow	West	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Turning left	Unknown	Other motor vehicle	
									0
2018-Feb-09, Fri,12:54	Clear	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Mar-04, Sun,15:34	Clear	Rear end	P.D. only	Dry	North	Turning right	Pick-up truck	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Mar-16, Fri,10:19	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Mar-19, Mon,08:41	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-May-11, Fri,20:58	Clear	Rear end	P.D. only	Dry	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					North	Making "U" turn	Automobile, station wagon	Other motor vehicle	
2018-May-17, Thu,10:05	Clear	Rear end	Non-fatal injury	Dry	East	Turning left	Bicycle	Other motor vehicle	0
					East	Turning left	Pick-up truck	Cyclist	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2018-Jun-08, Fri,19:04	Clear	Rear end	P.D. only	Dry	East	Going ahead	Unknown	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
									0
2018-Jun-18, Mon,14:35	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
									0
2018-Jul-14, Sat,12:15	Clear	Rear end	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
									0
2018-Aug-04, Sat,19:49	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	
					East	Turning right	Pick-up truck	Other motor vehicle	
									0
2018-Aug-11, Sat,17:24	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
									0
2018-Sep-13, Thu,16:02	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	
					East	Turning right	School bus	Other motor vehicle	
									0
2018-Sep-15, Sat,20:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Unknown	Unknown	Other motor vehicle	
									0
2018-Sep-23, Sun,01:03	Clear	Turning movement	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
									0
2018-Nov-02, Fri,19:45	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
									0
2018-Nov-11, Sun,13:08	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Slowing or stopping	Delivery van	Other motor vehicle	



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From: January 1, 2014 **To:** December 31, 2018

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Nov-24, Sat,19:03	Rain	SMV other	Non-fatal injury	Wet	North	Going ahead	Automobile, station wagon	Pedestrian	1
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Dec-07, Fri,18:47	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Dec-13, Thu,14:12	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Unknown	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2018-Dec-29, Sat,22:55	Snow	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	

APPENDIX D

Background Traffic Growth Analysis

Road/Road
8 hrs

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2010	Tues 29 June	461	377	2639	2731	6602	6762	4566	4414	28552
2016	Tues Jan 19	399	310	2467	2528	6477	5945	4451	3891	26468
2020	Tues Mar 10	427	320	2421	2560	6129	5908	4039	3850	25654

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	377	461	838	28552				
2016	310	399	709	26468	-17.8%	-13.4%	-15.4%	-7.3%
2020	320	427	747	25654	3.2%	7.0%	5.4%	-3.1%

Regression Estimate 2010 368 450 818
 Regression Estimate 2020 307 411 718
Average Annual Change -1.80% -0.91% -1.31%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	4566	4414	8980	28552				
2016	4451	3891	8342	26468	-2.5%	-11.8%	-7.1%	-7.3%
2020	4039	3850	7889	25654	-9.3%	-1.1%	-5.4%	-3.1%

Regression Estimate 2010 4619 4365 8984
 Regression Estimate 2020 4118 3777 7896
Average Annual Change -1.14% -1.44% -1.28%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	6762	6602	13364	28552				
2016	5945	6477	12422	26468	-12.1%	-1.9%	-7.0%	-7.3%
2020	5908	6129	12037	25654	-0.6%	-5.4%	-3.1%	-3.1%

Regression Estimate 2010 6682 6644 13326
 Regression Estimate 2020 5788 6192 11979
Average Annual Change -1.43% -0.70% -1.06%

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	2639	2731	5370	28552				
2016	2467	2528	4995	26468	-6.5%	-7.4%	-7.0%	-7.3%
2020	2421	2560	4981	25654	-1.9%	1.3%	-0.3%	-3.1%

Regression Estimate 2010 2628 2705 5333
 Regression Estimate 2020 2405 2520 4925
Average Annual Change -0.88% -0.70% -0.79%

Road/Road
AM Peak

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2010	Tues 29 June	54	35	295	272	867	748	529	606	3406
2016	Tues Jan 19	58	30	280	333	843	758	477	587	3366
2020	Tues Mar 10	57	26	274	227	834	717	449	598	3182

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	35	54	89	3406				
2016	30	58	88	3366	-14.3%	7.4%	-1.1%	-1.2%
2020	26	57	83	3182	-13.3%	-1.7%	-5.7%	-5.5%

Regression Estimate 2010 35 55 90
 Regression Estimate 2020 26 58 84
Average Annual Change -2.90% 0.59% -0.65%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	529	606	1135	3406				
2016	477	587	1064	3366	-9.8%	-3.1%	-6.3%	-1.2%
2020	449	598	1047	3182	-5.9%	1.9%	-1.6%	-5.5%

Regression Estimate 2010 528 602 1130
 Regression Estimate 2020 447 592 1040
Average Annual Change -1.64% -0.17% -0.83%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	748	867	1615	3406				
2016	758	843	1601	3366	1.3%	-2.8%	-0.9%	-1.2%
2020	717	834	1551	3182	-5.4%	-1.1%	-3.1%	-5.5%

Regression Estimate 2010 756 866 1621
 Regression Estimate 2020 728 832 1561
Average Annual Change -0.37% -0.39% -0.38%

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	295	272	567	3406				
2016	280	333	613	3366	-5.1%	22.4%	8.1%	-1.2%
2020	274	227	501	3182	-2.1%	-31.8%	-18.3%	-5.5%

Regression Estimate 2010 294 295 590
 Regression Estimate 2020 273 262 535
Average Annual Change -0.75% -1.19% -0.97%

Road/Road
PM Peak

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2010	Tues 29 June	73	87	475	538	1047	1203	737	658	4818
2016	Tues Jan 19	60	56	426	384	975	1027	710	612	4250
2020	Tues Mar 10	57	38	404	400	997	971	635	638	4140

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	87	73	160	4818				
2016	56	60	116	4250	-35.6%	-17.8%	-27.5%	-11.8%
2020	38	57	95	4140	-32.1%	-5.0%	-18.1%	-2.6%

Regression Estimate 2010 87 72 159
 Regression Estimate 2020 37 56 93
Average Annual Change -8.06% -2.56% -5.20%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	737	658	1395	4818				
2016	710	612	1322	4250	-3.7%	-7.0%	-5.2%	-11.8%
2020	635	638	1273	4140	-10.6%	4.2%	-3.7%	-2.6%

Regression Estimate 2010 746 649 1395
 Regression Estimate 2020 649 625 1273
Average Annual Change -1.39% -0.38% -0.91%

Year	Counts				% Change			
	EB	WB	EB+WB	INT	EB	WB	EB+WB	INT
2010	1203	1047	2250	4818				
2016	1027	975	2002	4250	-14.6%	-6.9%	-11.0%	-11.8%
2020	971	997	1968	4140	-5.5%	2.3%	-1.7%	-2.6%

Regression Estimate 2010 1193 1036 2229
 Regression Estimate 2020 956 980 1937
Average Annual Change -2.19% -0.55% -1.40%

Year	Counts				% Change			
	NB	SB	NB+SB	INT	NB	SB	NB+SB	INT
2010	475	538	1013	4818				
2016	426	384	810	4250	-10.3%	-28.6%	-20.0%	-11.8%
2020	404	400	804	4140	-5.2%	4.2%	-0.7%	-2.6%

Regression Estimate 2010 473 519 993
 Regression Estimate 2020 401 372 773
Average Annual Change -1.63% -3.28% -2.46%

APPENDIX E

TDM Checklists

TDM-Supportive Development Design and Infrastructure Checklist: *Non-Residential Developments (office, institutional, retail or industrial)*

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	<input type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (<i>see Official Plan policy 4.3.12</i>)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see <i>Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input checked="" type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input checked="" type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/> This will be confirmed during the SPA
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/> This will be confirmed during the SPA
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	<input type="checkbox"/>
BETTER	2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	<input type="checkbox"/>
2.3 Shower & change facilities		
BASIC	2.3.1 Provide shower and change facilities for the use of active commuters	<input type="checkbox"/>
BETTER	2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	<input type="checkbox"/>
2.4 Bicycle repair station		
BETTER	2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input checked="" type="checkbox"/>
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input checked="" type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input checked="" type="checkbox"/>
4.2 Carpool parking		
BASIC	4.2.1 Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	<input type="checkbox"/>
BETTER	4.2.2 At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	<input type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces (<i>see Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input type="checkbox"/> This will be confirmed during the SPA
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input checked="" type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (<i>see Zoning By-law Section 104</i>)	<input type="checkbox"/> This will be confirmed during the SPA
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (<i>see Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	<input type="checkbox"/>
7. OTHER		
7.1 On-site amenities to minimize off-site trips		
BETTER	7.1.1 Provide on-site amenities to minimize mid-day or mid-commute errands	<input type="checkbox"/>

TDM-Supportive Development Design and Infrastructure Checklist: *Residential Developments (multi-family or condominium)*

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	<input type="checkbox"/>
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (<i>see Official Plan policy 4.3.12</i>)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see <i>Official Plan policy 4.3.10</i>)	<input checked="" type="checkbox"/>
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see <i>Official Plan policy 4.3.11</i>)	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input checked="" type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input checked="" type="checkbox"/>
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	<input type="checkbox"/>
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input type="checkbox"/>
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see <i>Official Plan policy 4.3.6</i>)	<input checked="" type="checkbox"/>
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/> This will be confirmed during the SPA
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/> This will be confirmed during the SPA
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	<input type="checkbox"/>
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see <i>Zoning By-law Section 111</i>)	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	<input type="checkbox"/>
2.3 Bicycle repair station		
BETTER	2.3.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	<input type="checkbox"/>
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input checked="" type="checkbox"/>
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	<input checked="" type="checkbox"/>
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	<input checked="" type="checkbox"/>
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i>)	<input type="checkbox"/>
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	<input type="checkbox"/> This will be confirmed during the SPA
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	<input checked="" type="checkbox"/>
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i>)	<input type="checkbox"/> This will be confirmed during the SPA
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see <i>Zoning By-law Section 111</i>)	<input type="checkbox"/>
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC	★ 1.1.1 Designate an internal coordinator, or contract with an external coordinator	<input type="checkbox"/>
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	<input type="checkbox"/>
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/> <i>Proponent will likely provide</i>
2.2 Bicycle skills training		
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	<input type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/> Proponent will likely provide
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	<input type="checkbox"/>
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	<input type="checkbox"/>
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	<input type="checkbox"/>
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	<input type="checkbox"/>
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	<input type="checkbox"/>
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	<input type="checkbox"/>
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	<input type="checkbox"/>
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	<input type="checkbox"/> Proponent will consider
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	<input type="checkbox"/>
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	<input type="checkbox"/>
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	<input type="checkbox"/> Proponent will likely provide

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS		
6.1 Multimodal travel information		
BASIC ★	6.1.1 Provide a multimodal travel option information package to new residents	<input type="checkbox"/> Proponent will likely provide
6.2 Personalized trip planning		
BETTER ★	6.2.1 Offer personalized trip planning to new residents	<input type="checkbox"/>

APPENDIX F

Screenline Data

Study Name	33 - 3410 - Cummings Bridge - May - 22nd
Project	Screen Line Data For PGM
Project Code	P.G.M Screen Line Data
Channel Granularity	By Lanes
Bin Size	15 minutes
Time Zone	America/Toronto
Start Time	2019-05-22 06:00:00
End Time	2019-05-22 19:00:00
Location	Rideau St/Montreal Rd (Cummings Bridge)
Latitude and Longitude	45.433546,-75.672549
AM Peak	8 AM - 9 AM (0.987)
Midday Peak	11:45 AM - 12:45 PM (0.937)
PM Peak (Overall Peak Hour)	3:45 PM - 4:45 PM (0.968)

Motorcycles

Leg Direction Start Time	n/a Eastbound		n/a Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
	2019-05-22 06:00:00	1	2	1
2019-05-22 06:15:00	0	0	1	2
2019-05-22 06:30:00	1	1	1	0
2019-05-22 06:45:00	1	0	1	0
2019-05-22 07:00:00	2	1	0	0
2019-05-22 07:15:00	2	0	0	0
2019-05-22 07:30:00	1	0	1	4
2019-05-22 07:45:00	1	0	0	0
2019-05-22 08:00:00	0	0	0	1
2019-05-22 08:15:00	1	0	0	0
2019-05-22 08:30:00	1	0	0	0
2019-05-22 08:45:00	1	1	1	0
2019-05-22 09:00:00	1	0	1	0
2019-05-22 09:15:00	0	0	1	0
2019-05-22 09:30:00	0	0	0	0
2019-05-22 09:45:00	1	1	2	1
2019-05-22 10:00:00	1	1	0	2
2019-05-22 10:15:00	1	1	0	0
2019-05-22 10:30:00	0	0	0	0
2019-05-22 10:45:00	0	0	0	0
2019-05-22 11:00:00	0	0	0	0
2019-05-22 11:15:00	1	0	0	2
2019-05-22 11:30:00	2	1	1	0
2019-05-22 11:45:00	2	0	0	2
2019-05-22 12:00:00	0	0	0	1
2019-05-22 12:15:00	0	0	1	0
2019-05-22 12:30:00	1	0	0	0
2019-05-22 12:45:00	0	0	1	0
2019-05-22 13:00:00	4	1	2	0
2019-05-22 13:15:00	0	0	0	0
2019-05-22 13:30:00	0	0	0	1
2019-05-22 13:45:00	0	0	0	0
2019-05-22 14:00:00	3	1	1	1
2019-05-22 14:15:00	0	0	0	0
2019-05-22 14:30:00	1	0	3	0
2019-05-22 14:45:00	1	1	2	0
2019-05-22 15:00:00	2	1	3	1
2019-05-22 15:15:00	2	0	3	0
2019-05-22 15:30:00	1	0	1	3
2019-05-22 15:45:00	4	0	4	0
2019-05-22 16:00:00	6	1	4	2
2019-05-22 16:15:00	6	2	0	0
2019-05-22 16:30:00	0	0	1	1

2019-05-22 16:45:00	2	2	1	1
2019-05-22 17:00:00	2	1	3	2
2019-05-22 17:15:00	2	0	3	1
2019-05-22 17:30:00	0	0	0	0
2019-05-22 17:45:00	2	3	1	0
2019-05-22 18:00:00	0	0	0	0
2019-05-22 18:15:00	0	0	3	0
2019-05-22 18:30:00	0	0	1	1
2019-05-22 18:45:00	2	2	1	0

Cars					
Leg		n/a		n/a	
Direction		Eastbound		Westbound	
Start Time		Lane 1	Lane 2	Lane 1	Lane 2
	2019-05-22 06:00:00	41	33	29	12
	2019-05-22 06:15:00	40	24	36	26
	2019-05-22 06:30:00	69	42	34	48
	2019-05-22 06:45:00	51	52	44	36
	2019-05-22 07:00:00	85	78	51	47
	2019-05-22 07:15:00	85	54	56	69
	2019-05-22 07:30:00	101	68	78	81
	2019-05-22 07:45:00	101	67	76	105
	2019-05-22 08:00:00	105	81	83	130
	2019-05-22 08:15:00	91	77	104	127
	2019-05-22 08:30:00	106	88	91	118
	2019-05-22 08:45:00	118	71	93	133
	2019-05-22 09:00:00	88	56	87	112
	2019-05-22 09:15:00	81	65	75	112
	2019-05-22 09:30:00	94	90	65	72
	2019-05-22 09:45:00	70	78	93	87
	2019-05-22 10:00:00	80	80	68	77
	2019-05-22 10:15:00	81	65	73	72
	2019-05-22 10:30:00	89	55	60	47
	2019-05-22 10:45:00	84	84	69	75
	2019-05-22 11:00:00	74	63	75	58
	2019-05-22 11:15:00	77	84	67	61
	2019-05-22 11:30:00	83	77	58	66
	2019-05-22 11:45:00	86	91	74	83
	2019-05-22 12:00:00	90	81	70	63
	2019-05-22 12:15:00	91	80	80	59
	2019-05-22 12:30:00	103	92	77	75
	2019-05-22 12:45:00	90	77	81	65
	2019-05-22 13:00:00	93	64	69	70
	2019-05-22 13:15:00	104	73	78	76
	2019-05-22 13:30:00	90	83	84	64
	2019-05-22 13:45:00	95	70	87	70
	2019-05-22 14:00:00	75	99	95	58
	2019-05-22 14:15:00	94	70	104	60
	2019-05-22 14:30:00	101	98	98	67
	2019-05-22 14:45:00	101	98	107	78
	2019-05-22 15:00:00	144	105	135	77
	2019-05-22 15:15:00	121	119	162	85
	2019-05-22 15:30:00	128	83	187	107
	2019-05-22 15:45:00	147	105	187	102
	2019-05-22 16:00:00	141	127	198	98
	2019-05-22 16:15:00	147	132	185	106
	2019-05-22 16:30:00	134	127	171	109

2019-05-22 16:45:00	133	107	167	112
2019-05-22 17:00:00	142	122	165	108
2019-05-22 17:15:00	142	118	170	87
2019-05-22 17:30:00	132	112	144	116
2019-05-22 17:45:00	139	107	133	83
2019-05-22 18:00:00	132	97	116	84
2019-05-22 18:15:00	118	99	93	78
2019-05-22 18:30:00	97	90	86	81
2019-05-22 18:45:00	89	72	88	56

Light Goods Vehicles

Leg Direction Start Time	n/a		n/a	
	Eastbound		Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
2019-05-22 06:00:00	8	11	3	4
2019-05-22 06:15:00	3	13	4	4
2019-05-22 06:30:00	6	9	3	6
2019-05-22 06:45:00	5	10	3	3
2019-05-22 07:00:00	5	9	5	6
2019-05-22 07:15:00	7	8	4	9
2019-05-22 07:30:00	11	8	6	2
2019-05-22 07:45:00	8	13	6	4
2019-05-22 08:00:00	5	7	12	11
2019-05-22 08:15:00	7	7	14	13
2019-05-22 08:30:00	6	10	7	9
2019-05-22 08:45:00	3	6	7	16
2019-05-22 09:00:00	6	7	10	7
2019-05-22 09:15:00	5	10	8	10
2019-05-22 09:30:00	11	8	12	4
2019-05-22 09:45:00	9	11	15	12
2019-05-22 10:00:00	17	9	8	5
2019-05-22 10:15:00	8	7	8	10
2019-05-22 10:30:00	7	6	6	2
2019-05-22 10:45:00	7	10	5	8
2019-05-22 11:00:00	8	10	6	4
2019-05-22 11:15:00	4	11	5	6
2019-05-22 11:30:00	7	12	2	8
2019-05-22 11:45:00	12	12	6	6
2019-05-22 12:00:00	7	12	5	4
2019-05-22 12:15:00	7	7	4	7
2019-05-22 12:30:00	8	11	5	9
2019-05-22 12:45:00	8	7	13	16
2019-05-22 13:00:00	8	10	6	6
2019-05-22 13:15:00	8	10	5	4
2019-05-22 13:30:00	10	7	6	5
2019-05-22 13:45:00	4	9	3	5
2019-05-22 14:00:00	7	11	5	7
2019-05-22 14:15:00	8	13	10	5
2019-05-22 14:30:00	10	9	8	9
2019-05-22 14:45:00	10	6	9	4
2019-05-22 15:00:00	10	11	5	7
2019-05-22 15:15:00	10	5	12	3
2019-05-22 15:30:00	11	7	13	5
2019-05-22 15:45:00	9	9	8	11
2019-05-22 16:00:00	7	9	13	8
2019-05-22 16:15:00	10	13	9	6
2019-05-22 16:30:00	9	3	13	5

2019-05-22 16:45:00	8	6	10	3
2019-05-22 17:00:00	11	6	10	3
2019-05-22 17:15:00	7	5	12	6
2019-05-22 17:30:00	6	8	4	3
2019-05-22 17:45:00	3	3	4	3
2019-05-22 18:00:00	4	7	6	5
2019-05-22 18:15:00	5	4	9	5
2019-05-22 18:30:00	0	1	6	2
2019-05-22 18:45:00	3	4	3	4

Single-Unit Trucks

Leg Direction Start Time	n/a Eastbound		n/a Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
	2019-05-22 06:00:00	1	1	1
2019-05-22 06:15:00	0	3	1	0
2019-05-22 06:30:00	0	3	3	2
2019-05-22 06:45:00	0	2	2	2
2019-05-22 07:00:00	1	2	1	2
2019-05-22 07:15:00	2	2	3	1
2019-05-22 07:30:00	1	1	1	2
2019-05-22 07:45:00	2	1	6	2
2019-05-22 08:00:00	2	2	3	3
2019-05-22 08:15:00	1	5	4	2
2019-05-22 08:30:00	1	1	3	2
2019-05-22 08:45:00	1	2	2	4
2019-05-22 09:00:00	2	2	3	3
2019-05-22 09:15:00	1	4	4	2
2019-05-22 09:30:00	3	3	5	3
2019-05-22 09:45:00	2	1	7	3
2019-05-22 10:00:00	0	5	5	2
2019-05-22 10:15:00	3	2	0	0
2019-05-22 10:30:00	3	1	1	1
2019-05-22 10:45:00	3	4	1	0
2019-05-22 11:00:00	2	4	2	0
2019-05-22 11:15:00	1	1	7	2
2019-05-22 11:30:00	4	2	1	3
2019-05-22 11:45:00	3	2	1	2
2019-05-22 12:00:00	4	3	3	0
2019-05-22 12:15:00	3	3	2	1
2019-05-22 12:30:00	2	2	5	0
2019-05-22 12:45:00	3	1	0	6
2019-05-22 13:00:00	4	1	6	3
2019-05-22 13:15:00	7	3	3	3
2019-05-22 13:30:00	3	1	6	2
2019-05-22 13:45:00	2	3	0	1
2019-05-22 14:00:00	1	3	5	2
2019-05-22 14:15:00	0	3	2	0
2019-05-22 14:30:00	1	2	2	3
2019-05-22 14:45:00	2	3	0	3
2019-05-22 15:00:00	3	2	1	0
2019-05-22 15:15:00	3	2	2	1
2019-05-22 15:30:00	1	3	3	0
2019-05-22 15:45:00	4	3	2	0
2019-05-22 16:00:00	2	4	0	0
2019-05-22 16:15:00	1	3	2	0
2019-05-22 16:30:00	2	1	2	1

2019-05-22 16:45:00	0	4	1	2
2019-05-22 17:00:00	3	0	0	1
2019-05-22 17:15:00	3	1	1	0
2019-05-22 17:30:00	2	0	0	0
2019-05-22 17:45:00	1	1	3	0
2019-05-22 18:00:00	2	1	1	0
2019-05-22 18:15:00	2	0	0	0
2019-05-22 18:30:00	1	0	1	0
2019-05-22 18:45:00	0	0	0	0

Articulated Trucks

Leg Direction Start Time	n/a Eastbound		n/a Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
	2019-05-22 06:00:00	0	0	0
2019-05-22 06:15:00	0	0	0	0
2019-05-22 06:30:00	0	0	0	0
2019-05-22 06:45:00	0	0	0	0
2019-05-22 07:00:00	0	0	0	0
2019-05-22 07:15:00	0	0	0	0
2019-05-22 07:30:00	1	0	0	0
2019-05-22 07:45:00	0	0	0	0
2019-05-22 08:00:00	0	0	0	0
2019-05-22 08:15:00	0	1	0	0
2019-05-22 08:30:00	0	1	0	1
2019-05-22 08:45:00	0	0	1	0
2019-05-22 09:00:00	0	1	0	0
2019-05-22 09:15:00	0	2	0	1
2019-05-22 09:30:00	0	2	0	0
2019-05-22 09:45:00	0	1	1	0
2019-05-22 10:00:00	0	0	0	1
2019-05-22 10:15:00	0	0	0	0
2019-05-22 10:30:00	0	0	0	0
2019-05-22 10:45:00	0	0	1	0
2019-05-22 11:00:00	0	0	0	1
2019-05-22 11:15:00	0	1	0	1
2019-05-22 11:30:00	0	0	0	0
2019-05-22 11:45:00	0	0	0	0
2019-05-22 12:00:00	0	0	0	0
2019-05-22 12:15:00	0	1	1	0
2019-05-22 12:30:00	0	1	0	0
2019-05-22 12:45:00	1	1	0	0
2019-05-22 13:00:00	0	1	1	0
2019-05-22 13:15:00	0	1	0	0
2019-05-22 13:30:00	0	0	0	0
2019-05-22 13:45:00	0	0	2	0
2019-05-22 14:00:00	1	0	0	0
2019-05-22 14:15:00	0	0	1	0
2019-05-22 14:30:00	0	0	0	0
2019-05-22 14:45:00	0	0	1	0
2019-05-22 15:00:00	0	0	0	0
2019-05-22 15:15:00	0	0	0	1
2019-05-22 15:30:00	0	0	1	0
2019-05-22 15:45:00	0	0	0	0
2019-05-22 16:00:00	0	0	1	0
2019-05-22 16:15:00	0	0	0	0
2019-05-22 16:30:00	0	0	0	0

2019-05-22 16:45:00	0	0	0	0
2019-05-22 17:00:00	1	0	1	0
2019-05-22 17:15:00	0	1	0	0
2019-05-22 17:30:00	0	0	0	0
2019-05-22 17:45:00	0	0	0	0
2019-05-22 18:00:00	0	0	0	0
2019-05-22 18:15:00	0	0	0	0
2019-05-22 18:30:00	0	0	0	0
2019-05-22 18:45:00	0	0	0	0

Buses

Leg Direction Start Time	n/a Eastbound		n/a Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
	2019-05-22 06:00:00	1	0	0
2019-05-22 06:15:00	2	0	3	0
2019-05-22 06:30:00	1	1	4	0
2019-05-22 06:45:00	2	0	3	0
2019-05-22 07:00:00	6	1	4	0
2019-05-22 07:15:00	3	2	4	0
2019-05-22 07:30:00	4	1	8	0
2019-05-22 07:45:00	1	0	7	1
2019-05-22 08:00:00	8	2	5	0
2019-05-22 08:15:00	3	0	4	0
2019-05-22 08:30:00	3	0	4	0
2019-05-22 08:45:00	4	0	2	0
2019-05-22 09:00:00	5	0	6	0
2019-05-22 09:15:00	5	0	3	0
2019-05-22 09:30:00	4	0	6	1
2019-05-22 09:45:00	6	2	2	0
2019-05-22 10:00:00	2	0	3	0
2019-05-22 10:15:00	3	0	3	0
2019-05-22 10:30:00	4	0	7	3
2019-05-22 10:45:00	4	0	2	1
2019-05-22 11:00:00	4	2	5	1
2019-05-22 11:15:00	4	0	1	0
2019-05-22 11:30:00	4	0	4	0
2019-05-22 11:45:00	1	0	4	0
2019-05-22 12:00:00	5	0	4	0
2019-05-22 12:15:00	2	1	1	1
2019-05-22 12:30:00	2	1	3	0
2019-05-22 12:45:00	2	0	2	0
2019-05-22 13:00:00	3	0	6	1
2019-05-22 13:15:00	1	1	3	1
2019-05-22 13:30:00	5	0	4	0
2019-05-22 13:45:00	1	2	2	1
2019-05-22 14:00:00	2	0	5	0
2019-05-22 14:15:00	4	0	4	0
2019-05-22 14:30:00	4	0	2	1
2019-05-22 14:45:00	3	1	7	0
2019-05-22 15:00:00	1	0	5	3
2019-05-22 15:15:00	4	2	5	0
2019-05-22 15:30:00	2	1	6	1
2019-05-22 15:45:00	4	2	10	2
2019-05-22 16:00:00	4	0	3	1
2019-05-22 16:15:00	8	2	3	3
2019-05-22 16:30:00	5	0	6	0

2019-05-22 16:45:00	6	0	1	0
2019-05-22 17:00:00	4	0	7	0
2019-05-22 17:15:00	3	1	0	1
2019-05-22 17:30:00	3	0	8	0
2019-05-22 17:45:00	8	1	3	0
2019-05-22 18:00:00	4	0	2	0
2019-05-22 18:15:00	1	0	3	0
2019-05-22 18:30:00	4	1	5	1
2019-05-22 18:45:00	3	0	2	0

Bicycles on Road

Leg Direction Start Time	n/a		n/a	
	Eastbound		Westbound	
	Lane 1	Lane 2	Lane 1	Lane 2
2019-05-22 06:00:00	0	0	1	0
2019-05-22 06:15:00	0	0	1	0
2019-05-22 06:30:00	1	0	8	0
2019-05-22 06:45:00	3	0	3	0
2019-05-22 07:00:00	4	0	3	0
2019-05-22 07:15:00	1	0	4	0
2019-05-22 07:30:00	2	0	6	0
2019-05-22 07:45:00	4	0	8	0
2019-05-22 08:00:00	2	0	6	0
2019-05-22 08:15:00	2	0	8	0
2019-05-22 08:30:00	1	1	10	0
2019-05-22 08:45:00	5	0	12	0
2019-05-22 09:00:00	0	0	5	0
2019-05-22 09:15:00	4	0	5	0
2019-05-22 09:30:00	3	0	3	0
2019-05-22 09:45:00	4	0	2	1
2019-05-22 10:00:00	1	0	4	0
2019-05-22 10:15:00	3	0	4	0
2019-05-22 10:30:00	0	0	3	0
2019-05-22 10:45:00	2	0	2	0
2019-05-22 11:00:00	2	0	4	0
2019-05-22 11:15:00	4	0	2	0
2019-05-22 11:30:00	8	0	4	0
2019-05-22 11:45:00	1	0	1	0
2019-05-22 12:00:00	2	0	6	0
2019-05-22 12:15:00	3	0	1	0
2019-05-22 12:30:00	3	0	3	0
2019-05-22 12:45:00	5	0	2	0
2019-05-22 13:00:00	2	0	2	0
2019-05-22 13:15:00	5	0	2	0
2019-05-22 13:30:00	6	0	1	0
2019-05-22 13:45:00	1	0	2	0
2019-05-22 14:00:00	2	0	0	0
2019-05-22 14:15:00	8	0	4	0
2019-05-22 14:30:00	8	0	4	0
2019-05-22 14:45:00	3	0	1	0
2019-05-22 15:00:00	2	0	1	0
2019-05-22 15:15:00	8	0	2	0
2019-05-22 15:30:00	4	0	2	0
2019-05-22 15:45:00	5	0	4	0
2019-05-22 16:00:00	4	0	4	0
2019-05-22 16:15:00	4	0	3	0
2019-05-22 16:30:00	7	0	5	0

2019-05-22 16:45:00	13	0	6	0
2019-05-22 17:00:00	9	0	2	0
2019-05-22 17:15:00	11	1	9	0
2019-05-22 17:30:00	7	0	8	0
2019-05-22 17:45:00	12	0	2	0
2019-05-22 18:00:00	2	0	2	0
2019-05-22 18:15:00	5	0	1	0
2019-05-22 18:30:00	5	0	3	0
2019-05-22 18:45:00	3	0	4	0

Total Volume Class Breakdown

Leg	n/a		n/a		
Direction	Eastbound		Westbound		
Start Time	Lane 1	Lane 2	App Total	Lane 1	Lane 2
2019-05-22 06:00:00	52	47	99	35	17
2019-05-22 06:15:00	45	40	85	46	32
2019-05-22 06:30:00	78	56	134	53	56
2019-05-22 06:45:00	62	64	126	56	41
2019-05-22 07:00:00	103	91	194	64	55
2019-05-22 07:15:00	100	66	166	71	79
2019-05-22 07:30:00	121	78	199	100	89
2019-05-22 07:45:00	117	81	198	103	112
2019-05-22 08:00:00	122	92	214	109	145
2019-05-22 08:15:00	105	90	195	134	142
2019-05-22 08:30:00	118	101	219	115	130
2019-05-22 08:45:00	132	80	212	118	153
2019-05-22 09:00:00	102	66	168	112	122
2019-05-22 09:15:00	96	81	177	96	125
2019-05-22 09:30:00	115	103	218	91	80
2019-05-22 09:45:00	92	94	186	122	104
2019-05-22 10:00:00	101	95	196	88	87
2019-05-22 10:15:00	99	75	174	88	82
2019-05-22 10:30:00	103	62	165	77	53
2019-05-22 10:45:00	100	98	198	80	84
2019-05-22 11:00:00	90	79	169	92	64
2019-05-22 11:15:00	91	97	188	82	72
2019-05-22 11:30:00	108	92	200	70	77
2019-05-22 11:45:00	105	105	210	86	93
2019-05-22 12:00:00	108	96	204	88	68
2019-05-22 12:15:00	106	92	198	90	68
2019-05-22 12:30:00	119	107	226	93	84
2019-05-22 12:45:00	109	86	195	99	87
2019-05-22 13:00:00	114	77	191	92	80
2019-05-22 13:15:00	125	88	213	91	84
2019-05-22 13:30:00	114	91	205	101	72
2019-05-22 13:45:00	103	84	187	96	77
2019-05-22 14:00:00	91	114	205	111	68
2019-05-22 14:15:00	114	86	200	125	65
2019-05-22 14:30:00	125	109	234	117	80
2019-05-22 14:45:00	120	109	229	127	85
2019-05-22 15:00:00	162	119	281	150	88
2019-05-22 15:15:00	148	128	276	186	90
2019-05-22 15:30:00	147	94	241	213	116
2019-05-22 15:45:00	173	119	292	215	115
2019-05-22 16:00:00	164	141	305	223	109

2019-05-22 16:15:00	176	152	328	202	115
2019-05-22 16:30:00	157	131	288	198	116
2019-05-22 16:45:00	162	119	281	186	118
2019-05-22 17:00:00	172	129	301	188	114
2019-05-22 17:15:00	168	127	295	195	95
2019-05-22 17:30:00	150	120	270	164	119
2019-05-22 17:45:00	165	115	280	146	86
2019-05-22 18:00:00	144	105	249	127	89
2019-05-22 18:15:00	131	103	234	109	83
2019-05-22 18:30:00	107	92	199	102	85
2019-05-22 18:45:00	100	78	178	98	60
Grand Total	6131	4944	11075	6020	4610
% Approach	55.4%	44.6%		56.6%	43.4%
% Total	28.2%	22.8%	51.0%	27.7%	21.2%
Motorcycles	62	24	86	50	29
% Motorcycles	1.0%	0.5%	0.8%	0.8%	0.6%
Cars	5193	4330	9523	5056	4148
% Cars	84.7%	87.6%	86.0%	84.0%	90.0%
Light Goods Vehicles	383	437	820	381	329
% Light Goods Vehicles	6.2%	8.8%	7.4%	6.3%	7.1%
Single-Unit Trucks	101	109	210	120	73
% Single-Unit Trucks	1.6%	2.2%	1.9%	2.0%	1.6%
Articulated Trucks	4	15	19	12	6
% Articulated Trucks	0.1%	0.3%	0.2%	0.2%	0.1%
Buses	182	27	209	206	24
% Buses	3.0%	0.5%	1.9%	3.4%	0.5%
Bicycles on Road	206	2	208	195	1
% Bicycles on Road	3.4%	0.0%	1.9%	3.2%	0.0%

App Total	Int Total
52	151
78	163
109	243
97	223
119	313
150	316
189	388
215	413
254	468
276	471
245	464
271	483
234	402
221	398
171	389
226	412
175	371
170	344
130	295
164	362
156	325
154	342
147	347
179	389
156	360
158	356
177	403
186	381
172	363
175	388
173	378
173	360
179	384
190	390
197	431
212	441
238	519
276	552
329	570
330	622
332	637

317	645
314	602
304	585
302	603
290	585
283	553
232	512
216	465
192	426
187	386
158	336
<hr/>	<hr/>
10630	21705

49.0%	
79	165
0.7%	0.8%
9204	18727
86.6%	86.3%
710	1530
6.7%	7.0%
193	403
1.8%	1.9%
18	37
0.2%	0.2%
230	439
2.2%	2.0%
196	404
1.8%	1.9%

Leg Direction Start Time	n/a Eastbound			n/a Westbound	
	Lane 1	Lane 2	App Total	Lane 1	Lane 2
2019-05-22 08:00:00	122	92	214	109	145
2019-05-22 08:15:00	105	90	195	134	142
2019-05-22 08:30:00	118	101	219	115	130
2019-05-22 08:45:00	132	80	212	118	153
Grand Total	477	363	840	476	570
% Approach	56.8%	43.2%		45.5%	54.5%
% Total	25.3%	19.2%	44.5%	25.2%	30.2%
PHF (8 AM - 9 AM)	0.919	0.905	0.955	0.873	0.931
Motorcycles	3	1	4	1	1
% Motorcycles	0.6%	0.3%	0.5%	0.2%	0.2%
Cars	420	317	737	371	508
% Cars	88.1%	87.3%	87.7%	77.9%	89.1%
Light Goods Vehicles	21	30	51	40	49
% Light Goods Vehicles	4.4%	8.3%	6.1%	8.4%	8.6%
Single-Unit Trucks	5	10	15	12	11
% Single-Unit Trucks	1.0%	2.8%	1.8%	2.5%	1.9%
Articulated Trucks	0	2	2	1	1
% Articulated Trucks	0.0%	0.6%	0.2%	0.2%	0.2%
Buses	18	2	20	15	0
% Buses	3.8%	0.6%	2.4%	3.2%	0.0%
Bicycles on Road	10	1	11	36	0
% Bicycles on Road	2.1%	0.3%	1.3%	7.6%	0.0%

App Total	Int Total
254	468
276	471
245	464
271	483
<hr/>	
1046	1886

55.5%	
0.942	0.987
2	6
0.2%	0.3%
879	1616
84.0%	85.7%
89	140
8.5%	7.4%
23	38
2.2%	2.0%
2	4
0.2%	0.2%
15	35
1.4%	1.9%
36	47
3.4%	2.5%

Leg	n/a		n/a	
Direction	Eastbound		Westbound	
Start Time	Lane 1	Lane 2	App Total	Lane 1
2019-05-22 11:45:00	105	105	210	86
2019-05-22 12:00:00	108	96	204	88
2019-05-22 12:15:00	106	92	198	90
2019-05-22 12:30:00	119	107	226	93
Grand Total	438	400	838	357
% Approach	52.3%	47.7%		53.3%
% Total	29.0%	26.5%	55.6%	23.7%
PHF (11:45 AM - 12:45 PM)	0.925	0.935	0.929	0.961
Motorcycles	3	0	3	1
% Motorcycles	0.7%	0.0%	0.4%	0.3%
Cars	370	344	714	301
% Cars	84.5%	86.0%	85.2%	84.3%
Light Goods Vehicles	34	42	76	20
% Light Goods Vehicles	7.8%	10.5%	9.1%	5.6%
Single-Unit Trucks	12	10	22	11
% Single-Unit Trucks	2.7%	2.5%	2.6%	3.1%
Articulated Trucks	0	2	2	1
% Articulated Trucks	0.0%	0.5%	0.2%	0.3%
Buses	10	2	12	12
% Buses	2.3%	0.5%	1.4%	3.4%
Bicycles on Road	9	0	9	11
% Bicycles on Road	2.1%	0.0%	1.1%	3.1%

Lane 2	App Total	Int Total
93	179	389
68	156	360
68	158	356
84	177	403
<hr/>		
313	670	1508
46.7%		
20.8%	44.4%	
0.841	0.926	0.937
3	4	7
1.0%	0.6%	0.5%
280	581	1295
89.5%	86.7%	85.9%
26	46	122
8.3%	6.9%	8.1%
3	14	36
1.0%	2.1%	2.4%
0	1	3
0.0%	0.1%	0.2%
1	13	25
0.3%	1.9%	1.7%
0	11	20
0.0%	1.6%	1.3%

Leg	n/a		n/a	
Direction	Eastbound		Westbound	
Start Time	Lane 1	Lane 2	App Total	Lane 1
2019-05-22 15:45:00	173	119	292	215
2019-05-22 16:00:00	164	141	305	223
2019-05-22 16:15:00	176	152	328	202
2019-05-22 16:30:00	157	131	288	198
Grand Total	670	543	1213	838
% Approach	55.2%	44.8%		64.8%
% Total	26.7%	21.7%	48.4%	33.4%
PHF (3:45 PM - 4:45 PM)	0.945	0.893	0.921	0.938
Motorcycles	16	3	19	9
% Motorcycles	2.4%	0.6%	1.6%	1.1%
Cars	569	491	1060	741
% Cars	84.9%	90.4%	87.4%	88.4%
Light Goods Vehicles	35	34	69	43
% Light Goods Vehicles	5.2%	6.3%	5.7%	5.1%
Single-Unit Trucks	9	11	20	6
% Single-Unit Trucks	1.3%	2.0%	1.6%	0.7%
Articulated Trucks	0	0	0	1
% Articulated Trucks	0.0%	0.0%	0.0%	0.1%
Buses	21	4	25	22
% Buses	3.1%	0.7%	2.1%	2.6%
Bicycles on Road	20	0	20	16
% Bicycles on Road	3.0%	0.0%	1.6%	1.9%

Lane 2	App Total	Int Total
115	330	622
109	332	637
115	317	645
116	314	602
<hr/>		
455	1293	2506
35.2%		
18.2%	51.6%	
0.981	0.973	0.968
3	12	31
0.7%	0.9%	1.2%
415	1156	2216
91.2%	89.4%	88.4%
30	73	142
6.6%	5.6%	5.7%
1	7	27
0.2%	0.5%	1.1%
0	1	1
0.0%	0.1%	0.0%
6	28	53
1.3%	2.2%	2.1%
0	16	36
0.0%	1.2%	1.4%

Time	Direction	Channel	Class	Volume
2019-05-22 06:00:00	West	Lane 1	Motorcycles	1
2019-05-22 06:00:00	West	Lane 1	Cars	41
2019-05-22 06:00:00	West	Lane 1	Light Goods Vehicle	8
2019-05-22 06:00:00	West	Lane 1	Single-Unit Trucks	1
2019-05-22 06:00:00	West	Lane 1	Articulated Trucks	0
2019-05-22 06:00:00	West	Lane 1	Buses	1
2019-05-22 06:00:00	West	Lane 1	Bicycles on Road	0
2019-05-22 06:00:00	West	Lane 2	Motorcycles	2
2019-05-22 06:00:00	West	Lane 2	Cars	33
2019-05-22 06:00:00	West	Lane 2	Light Goods Vehicle	11
2019-05-22 06:00:00	West	Lane 2	Single-Unit Trucks	1
2019-05-22 06:00:00	West	Lane 2	Articulated Trucks	0
2019-05-22 06:00:00	West	Lane 2	Buses	0
2019-05-22 06:00:00	West	Lane 2	Bicycles on Road	0
2019-05-22 06:00:00	East	Lane 1	Motorcycles	1
2019-05-22 06:00:00	East	Lane 1	Cars	29
2019-05-22 06:00:00	East	Lane 1	Light Goods Vehicle	3
2019-05-22 06:00:00	East	Lane 1	Single-Unit Trucks	1
2019-05-22 06:00:00	East	Lane 1	Articulated Trucks	0
2019-05-22 06:00:00	East	Lane 1	Buses	0
2019-05-22 06:00:00	East	Lane 1	Bicycles on Road	1
2019-05-22 06:00:00	East	Lane 2	Motorcycles	0
2019-05-22 06:00:00	East	Lane 2	Cars	12
2019-05-22 06:00:00	East	Lane 2	Light Goods Vehicle	4
2019-05-22 06:00:00	East	Lane 2	Single-Unit Trucks	1
2019-05-22 06:00:00	East	Lane 2	Articulated Trucks	0
2019-05-22 06:00:00	East	Lane 2	Buses	0
2019-05-22 06:00:00	East	Lane 2	Bicycles on Road	0
2019-05-22 06:15:00	West	Lane 1	Motorcycles	0
2019-05-22 06:15:00	West	Lane 1	Cars	40
2019-05-22 06:15:00	West	Lane 1	Light Goods Vehicle	3
2019-05-22 06:15:00	West	Lane 1	Single-Unit Trucks	0
2019-05-22 06:15:00	West	Lane 1	Articulated Trucks	0
2019-05-22 06:15:00	West	Lane 1	Buses	2
2019-05-22 06:15:00	West	Lane 1	Bicycles on Road	0
2019-05-22 06:15:00	West	Lane 2	Motorcycles	0
2019-05-22 06:15:00	West	Lane 2	Cars	24
2019-05-22 06:15:00	West	Lane 2	Light Goods Vehicle	13
2019-05-22 06:15:00	West	Lane 2	Single-Unit Trucks	3
2019-05-22 06:15:00	West	Lane 2	Articulated Trucks	0
2019-05-22 06:15:00	West	Lane 2	Buses	0
2019-05-22 06:15:00	West	Lane 2	Bicycles on Road	0
2019-05-22 06:15:00	East	Lane 1	Motorcycles	1
2019-05-22 06:15:00	East	Lane 1	Cars	36
2019-05-22 06:15:00	East	Lane 1	Light Goods Vehicle	4
2019-05-22 06:15:00	East	Lane 1	Single-Unit Trucks	1

2019-05-22 06:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 06:15:00 East	Lane 1	Buses	3
2019-05-22 06:15:00 East	Lane 1	Bicycles on Road	1
2019-05-22 06:15:00 East	Lane 2	Motorcycles	2
2019-05-22 06:15:00 East	Lane 2	Cars	26
2019-05-22 06:15:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 06:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 06:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 06:15:00 East	Lane 2	Buses	0
2019-05-22 06:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 06:30:00 West	Lane 1	Motorcycles	1
2019-05-22 06:30:00 West	Lane 1	Cars	69
2019-05-22 06:30:00 West	Lane 1	Light Goods Vehicle	6
2019-05-22 06:30:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 06:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 06:30:00 West	Lane 1	Buses	1
2019-05-22 06:30:00 West	Lane 1	Bicycles on Road	1
2019-05-22 06:30:00 West	Lane 2	Motorcycles	1
2019-05-22 06:30:00 West	Lane 2	Cars	42
2019-05-22 06:30:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 06:30:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 06:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 06:30:00 West	Lane 2	Buses	1
2019-05-22 06:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 06:30:00 East	Lane 1	Motorcycles	1
2019-05-22 06:30:00 East	Lane 1	Cars	34
2019-05-22 06:30:00 East	Lane 1	Light Goods Vehicle	3
2019-05-22 06:30:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 06:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 06:30:00 East	Lane 1	Buses	4
2019-05-22 06:30:00 East	Lane 1	Bicycles on Road	8
2019-05-22 06:30:00 East	Lane 2	Motorcycles	0
2019-05-22 06:30:00 East	Lane 2	Cars	48
2019-05-22 06:30:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 06:30:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 06:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 06:30:00 East	Lane 2	Buses	0
2019-05-22 06:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 06:45:00 West	Lane 1	Motorcycles	1
2019-05-22 06:45:00 West	Lane 1	Cars	51
2019-05-22 06:45:00 West	Lane 1	Light Goods Vehicle	5
2019-05-22 06:45:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 06:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 06:45:00 West	Lane 1	Buses	2
2019-05-22 06:45:00 West	Lane 1	Bicycles on Road	3
2019-05-22 06:45:00 West	Lane 2	Motorcycles	0
2019-05-22 06:45:00 West	Lane 2	Cars	52

2019-05-22 06:45:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 06:45:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 06:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 06:45:00 West	Lane 2	Buses	0
2019-05-22 06:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 06:45:00 East	Lane 1	Motorcycles	1
2019-05-22 06:45:00 East	Lane 1	Cars	44
2019-05-22 06:45:00 East	Lane 1	Light Goods Vehicle	3
2019-05-22 06:45:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 06:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 06:45:00 East	Lane 1	Buses	3
2019-05-22 06:45:00 East	Lane 1	Bicycles on Road	3
2019-05-22 06:45:00 East	Lane 2	Motorcycles	0
2019-05-22 06:45:00 East	Lane 2	Cars	36
2019-05-22 06:45:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 06:45:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 06:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 06:45:00 East	Lane 2	Buses	0
2019-05-22 06:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 07:00:00 West	Lane 1	Motorcycles	2
2019-05-22 07:00:00 West	Lane 1	Cars	85
2019-05-22 07:00:00 West	Lane 1	Light Goods Vehicle	5
2019-05-22 07:00:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 07:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 07:00:00 West	Lane 1	Buses	6
2019-05-22 07:00:00 West	Lane 1	Bicycles on Road	4
2019-05-22 07:00:00 West	Lane 2	Motorcycles	1
2019-05-22 07:00:00 West	Lane 2	Cars	78
2019-05-22 07:00:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 07:00:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 07:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 07:00:00 West	Lane 2	Buses	1
2019-05-22 07:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 07:00:00 East	Lane 1	Motorcycles	0
2019-05-22 07:00:00 East	Lane 1	Cars	51
2019-05-22 07:00:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 07:00:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 07:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 07:00:00 East	Lane 1	Buses	4
2019-05-22 07:00:00 East	Lane 1	Bicycles on Road	3
2019-05-22 07:00:00 East	Lane 2	Motorcycles	0
2019-05-22 07:00:00 East	Lane 2	Cars	47
2019-05-22 07:00:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 07:00:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 07:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 07:00:00 East	Lane 2	Buses	0
2019-05-22 07:00:00 East	Lane 2	Bicycles on Road	0

2019-05-22 07:15:00 West	Lane 1	Motorcycles	2
2019-05-22 07:15:00 West	Lane 1	Cars	85
2019-05-22 07:15:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 07:15:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 07:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 07:15:00 West	Lane 1	Buses	3
2019-05-22 07:15:00 West	Lane 1	Bicycles on Road	1
2019-05-22 07:15:00 West	Lane 2	Motorcycles	0
2019-05-22 07:15:00 West	Lane 2	Cars	54
2019-05-22 07:15:00 West	Lane 2	Light Goods Vehicle	8
2019-05-22 07:15:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 07:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 07:15:00 West	Lane 2	Buses	2
2019-05-22 07:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 07:15:00 East	Lane 1	Motorcycles	0
2019-05-22 07:15:00 East	Lane 1	Cars	56
2019-05-22 07:15:00 East	Lane 1	Light Goods Vehicle	4
2019-05-22 07:15:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 07:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 07:15:00 East	Lane 1	Buses	4
2019-05-22 07:15:00 East	Lane 1	Bicycles on Road	4
2019-05-22 07:15:00 East	Lane 2	Motorcycles	0
2019-05-22 07:15:00 East	Lane 2	Cars	69
2019-05-22 07:15:00 East	Lane 2	Light Goods Vehicle	9
2019-05-22 07:15:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 07:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 07:15:00 East	Lane 2	Buses	0
2019-05-22 07:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 07:30:00 West	Lane 1	Motorcycles	1
2019-05-22 07:30:00 West	Lane 1	Cars	101
2019-05-22 07:30:00 West	Lane 1	Light Goods Vehicle	11
2019-05-22 07:30:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 07:30:00 West	Lane 1	Articulated Trucks	1
2019-05-22 07:30:00 West	Lane 1	Buses	4
2019-05-22 07:30:00 West	Lane 1	Bicycles on Road	2
2019-05-22 07:30:00 West	Lane 2	Motorcycles	0
2019-05-22 07:30:00 West	Lane 2	Cars	68
2019-05-22 07:30:00 West	Lane 2	Light Goods Vehicle	8
2019-05-22 07:30:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 07:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 07:30:00 West	Lane 2	Buses	1
2019-05-22 07:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 07:30:00 East	Lane 1	Motorcycles	1
2019-05-22 07:30:00 East	Lane 1	Cars	78
2019-05-22 07:30:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 07:30:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 07:30:00 East	Lane 1	Articulated Trucks	0

2019-05-22 07:30:00 East	Lane 1	Buses	8
2019-05-22 07:30:00 East	Lane 1	Bicycles on Road	6
2019-05-22 07:30:00 East	Lane 2	Motorcycles	4
2019-05-22 07:30:00 East	Lane 2	Cars	81
2019-05-22 07:30:00 East	Lane 2	Light Goods Vehicle	2
2019-05-22 07:30:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 07:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 07:30:00 East	Lane 2	Buses	0
2019-05-22 07:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 07:45:00 West	Lane 1	Motorcycles	1
2019-05-22 07:45:00 West	Lane 1	Cars	101
2019-05-22 07:45:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 07:45:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 07:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 07:45:00 West	Lane 1	Buses	1
2019-05-22 07:45:00 West	Lane 1	Bicycles on Road	4
2019-05-22 07:45:00 West	Lane 2	Motorcycles	0
2019-05-22 07:45:00 West	Lane 2	Cars	67
2019-05-22 07:45:00 West	Lane 2	Light Goods Vehicle	13
2019-05-22 07:45:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 07:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 07:45:00 West	Lane 2	Buses	0
2019-05-22 07:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 07:45:00 East	Lane 1	Motorcycles	0
2019-05-22 07:45:00 East	Lane 1	Cars	76
2019-05-22 07:45:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 07:45:00 East	Lane 1	Single-Unit Trucks	6
2019-05-22 07:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 07:45:00 East	Lane 1	Buses	7
2019-05-22 07:45:00 East	Lane 1	Bicycles on Road	8
2019-05-22 07:45:00 East	Lane 2	Motorcycles	0
2019-05-22 07:45:00 East	Lane 2	Cars	105
2019-05-22 07:45:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 07:45:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 07:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 07:45:00 East	Lane 2	Buses	1
2019-05-22 07:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 08:00:00 West	Lane 1	Motorcycles	0
2019-05-22 08:00:00 West	Lane 1	Cars	105
2019-05-22 08:00:00 West	Lane 1	Light Goods Vehicle	5
2019-05-22 08:00:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 08:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 08:00:00 West	Lane 1	Buses	8
2019-05-22 08:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 08:00:00 West	Lane 2	Motorcycles	0
2019-05-22 08:00:00 West	Lane 2	Cars	81
2019-05-22 08:00:00 West	Lane 2	Light Goods Vehicle	7

2019-05-22 08:00:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 08:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 08:00:00 West	Lane 2	Buses	2
2019-05-22 08:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 08:00:00 East	Lane 1	Motorcycles	0
2019-05-22 08:00:00 East	Lane 1	Cars	83
2019-05-22 08:00:00 East	Lane 1	Light Goods Vehicle	12
2019-05-22 08:00:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 08:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 08:00:00 East	Lane 1	Buses	5
2019-05-22 08:00:00 East	Lane 1	Bicycles on Road	6
2019-05-22 08:00:00 East	Lane 2	Motorcycles	1
2019-05-22 08:00:00 East	Lane 2	Cars	130
2019-05-22 08:00:00 East	Lane 2	Light Goods Vehicle	11
2019-05-22 08:00:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 08:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 08:00:00 East	Lane 2	Buses	0
2019-05-22 08:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 08:15:00 West	Lane 1	Motorcycles	1
2019-05-22 08:15:00 West	Lane 1	Cars	91
2019-05-22 08:15:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 08:15:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 08:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 08:15:00 West	Lane 1	Buses	3
2019-05-22 08:15:00 West	Lane 1	Bicycles on Road	2
2019-05-22 08:15:00 West	Lane 2	Motorcycles	0
2019-05-22 08:15:00 West	Lane 2	Cars	77
2019-05-22 08:15:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 08:15:00 West	Lane 2	Single-Unit Trucks	5
2019-05-22 08:15:00 West	Lane 2	Articulated Trucks	1
2019-05-22 08:15:00 West	Lane 2	Buses	0
2019-05-22 08:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 08:15:00 East	Lane 1	Motorcycles	0
2019-05-22 08:15:00 East	Lane 1	Cars	104
2019-05-22 08:15:00 East	Lane 1	Light Goods Vehicle	14
2019-05-22 08:15:00 East	Lane 1	Single-Unit Trucks	4
2019-05-22 08:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 08:15:00 East	Lane 1	Buses	4
2019-05-22 08:15:00 East	Lane 1	Bicycles on Road	8
2019-05-22 08:15:00 East	Lane 2	Motorcycles	0
2019-05-22 08:15:00 East	Lane 2	Cars	127
2019-05-22 08:15:00 East	Lane 2	Light Goods Vehicle	13
2019-05-22 08:15:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 08:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 08:15:00 East	Lane 2	Buses	0
2019-05-22 08:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 08:30:00 West	Lane 1	Motorcycles	1

2019-05-22 08:30:00 West	Lane 1	Cars	106
2019-05-22 08:30:00 West	Lane 1	Light Goods Vehicle	6
2019-05-22 08:30:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 08:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 08:30:00 West	Lane 1	Buses	3
2019-05-22 08:30:00 West	Lane 1	Bicycles on Road	1
2019-05-22 08:30:00 West	Lane 2	Motorcycles	0
2019-05-22 08:30:00 West	Lane 2	Cars	88
2019-05-22 08:30:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 08:30:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 08:30:00 West	Lane 2	Articulated Trucks	1
2019-05-22 08:30:00 West	Lane 2	Buses	0
2019-05-22 08:30:00 West	Lane 2	Bicycles on Road	1
2019-05-22 08:30:00 East	Lane 1	Motorcycles	0
2019-05-22 08:30:00 East	Lane 1	Cars	91
2019-05-22 08:30:00 East	Lane 1	Light Goods Vehicle	7
2019-05-22 08:30:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 08:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 08:30:00 East	Lane 1	Buses	4
2019-05-22 08:30:00 East	Lane 1	Bicycles on Road	10
2019-05-22 08:30:00 East	Lane 2	Motorcycles	0
2019-05-22 08:30:00 East	Lane 2	Cars	118
2019-05-22 08:30:00 East	Lane 2	Light Goods Vehicle	9
2019-05-22 08:30:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 08:30:00 East	Lane 2	Articulated Trucks	1
2019-05-22 08:30:00 East	Lane 2	Buses	0
2019-05-22 08:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 08:45:00 West	Lane 1	Motorcycles	1
2019-05-22 08:45:00 West	Lane 1	Cars	118
2019-05-22 08:45:00 West	Lane 1	Light Goods Vehicle	3
2019-05-22 08:45:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 08:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 08:45:00 West	Lane 1	Buses	4
2019-05-22 08:45:00 West	Lane 1	Bicycles on Road	5
2019-05-22 08:45:00 West	Lane 2	Motorcycles	1
2019-05-22 08:45:00 West	Lane 2	Cars	71
2019-05-22 08:45:00 West	Lane 2	Light Goods Vehicle	6
2019-05-22 08:45:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 08:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 08:45:00 West	Lane 2	Buses	0
2019-05-22 08:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 08:45:00 East	Lane 1	Motorcycles	1
2019-05-22 08:45:00 East	Lane 1	Cars	93
2019-05-22 08:45:00 East	Lane 1	Light Goods Vehicle	7
2019-05-22 08:45:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 08:45:00 East	Lane 1	Articulated Trucks	1
2019-05-22 08:45:00 East	Lane 1	Buses	2

2019-05-22 08:45:00 East	Lane 1	Bicycles on Road	12
2019-05-22 08:45:00 East	Lane 2	Motorcycles	0
2019-05-22 08:45:00 East	Lane 2	Cars	133
2019-05-22 08:45:00 East	Lane 2	Light Goods Vehicle	16
2019-05-22 08:45:00 East	Lane 2	Single-Unit Trucks	4
2019-05-22 08:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 08:45:00 East	Lane 2	Buses	0
2019-05-22 08:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 09:00:00 West	Lane 1	Motorcycles	1
2019-05-22 09:00:00 West	Lane 1	Cars	88
2019-05-22 09:00:00 West	Lane 1	Light Goods Vehicle	6
2019-05-22 09:00:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 09:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 09:00:00 West	Lane 1	Buses	5
2019-05-22 09:00:00 West	Lane 1	Bicycles on Road	0
2019-05-22 09:00:00 West	Lane 2	Motorcycles	0
2019-05-22 09:00:00 West	Lane 2	Cars	56
2019-05-22 09:00:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 09:00:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 09:00:00 West	Lane 2	Articulated Trucks	1
2019-05-22 09:00:00 West	Lane 2	Buses	0
2019-05-22 09:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 09:00:00 East	Lane 1	Motorcycles	1
2019-05-22 09:00:00 East	Lane 1	Cars	87
2019-05-22 09:00:00 East	Lane 1	Light Goods Vehicle	10
2019-05-22 09:00:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 09:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 09:00:00 East	Lane 1	Buses	6
2019-05-22 09:00:00 East	Lane 1	Bicycles on Road	5
2019-05-22 09:00:00 East	Lane 2	Motorcycles	0
2019-05-22 09:00:00 East	Lane 2	Cars	112
2019-05-22 09:00:00 East	Lane 2	Light Goods Vehicle	7
2019-05-22 09:00:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 09:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 09:00:00 East	Lane 2	Buses	0
2019-05-22 09:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 09:15:00 West	Lane 1	Motorcycles	0
2019-05-22 09:15:00 West	Lane 1	Cars	81
2019-05-22 09:15:00 West	Lane 1	Light Goods Vehicle	5
2019-05-22 09:15:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 09:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 09:15:00 West	Lane 1	Buses	5
2019-05-22 09:15:00 West	Lane 1	Bicycles on Road	4
2019-05-22 09:15:00 West	Lane 2	Motorcycles	0
2019-05-22 09:15:00 West	Lane 2	Cars	65
2019-05-22 09:15:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 09:15:00 West	Lane 2	Single-Unit Trucks	4

2019-05-22 09:15:00 West	Lane 2	Articulated Trucks	2
2019-05-22 09:15:00 West	Lane 2	Buses	0
2019-05-22 09:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 09:15:00 East	Lane 1	Motorcycles	1
2019-05-22 09:15:00 East	Lane 1	Cars	75
2019-05-22 09:15:00 East	Lane 1	Light Goods Vehicle	8
2019-05-22 09:15:00 East	Lane 1	Single-Unit Trucks	4
2019-05-22 09:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 09:15:00 East	Lane 1	Buses	3
2019-05-22 09:15:00 East	Lane 1	Bicycles on Road	5
2019-05-22 09:15:00 East	Lane 2	Motorcycles	0
2019-05-22 09:15:00 East	Lane 2	Cars	112
2019-05-22 09:15:00 East	Lane 2	Light Goods Vehicle	10
2019-05-22 09:15:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 09:15:00 East	Lane 2	Articulated Trucks	1
2019-05-22 09:15:00 East	Lane 2	Buses	0
2019-05-22 09:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 09:30:00 West	Lane 1	Motorcycles	0
2019-05-22 09:30:00 West	Lane 1	Cars	94
2019-05-22 09:30:00 West	Lane 1	Light Goods Vehicle	11
2019-05-22 09:30:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 09:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 09:30:00 West	Lane 1	Buses	4
2019-05-22 09:30:00 West	Lane 1	Bicycles on Road	3
2019-05-22 09:30:00 West	Lane 2	Motorcycles	0
2019-05-22 09:30:00 West	Lane 2	Cars	90
2019-05-22 09:30:00 West	Lane 2	Light Goods Vehicle	8
2019-05-22 09:30:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 09:30:00 West	Lane 2	Articulated Trucks	2
2019-05-22 09:30:00 West	Lane 2	Buses	0
2019-05-22 09:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 09:30:00 East	Lane 1	Motorcycles	0
2019-05-22 09:30:00 East	Lane 1	Cars	65
2019-05-22 09:30:00 East	Lane 1	Light Goods Vehicle	12
2019-05-22 09:30:00 East	Lane 1	Single-Unit Trucks	5
2019-05-22 09:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 09:30:00 East	Lane 1	Buses	6
2019-05-22 09:30:00 East	Lane 1	Bicycles on Road	3
2019-05-22 09:30:00 East	Lane 2	Motorcycles	0
2019-05-22 09:30:00 East	Lane 2	Cars	72
2019-05-22 09:30:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 09:30:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 09:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 09:30:00 East	Lane 2	Buses	1
2019-05-22 09:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 09:45:00 West	Lane 1	Motorcycles	1
2019-05-22 09:45:00 West	Lane 1	Cars	70

2019-05-22 09:45:00 West	Lane 1	Light Goods Vehicle	9
2019-05-22 09:45:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 09:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 09:45:00 West	Lane 1	Buses	6
2019-05-22 09:45:00 West	Lane 1	Bicycles on Road	4
2019-05-22 09:45:00 West	Lane 2	Motorcycles	1
2019-05-22 09:45:00 West	Lane 2	Cars	78
2019-05-22 09:45:00 West	Lane 2	Light Goods Vehicle	11
2019-05-22 09:45:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 09:45:00 West	Lane 2	Articulated Trucks	1
2019-05-22 09:45:00 West	Lane 2	Buses	2
2019-05-22 09:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 09:45:00 East	Lane 1	Motorcycles	2
2019-05-22 09:45:00 East	Lane 1	Cars	93
2019-05-22 09:45:00 East	Lane 1	Light Goods Vehicle	15
2019-05-22 09:45:00 East	Lane 1	Single-Unit Trucks	7
2019-05-22 09:45:00 East	Lane 1	Articulated Trucks	1
2019-05-22 09:45:00 East	Lane 1	Buses	2
2019-05-22 09:45:00 East	Lane 1	Bicycles on Road	2
2019-05-22 09:45:00 East	Lane 2	Motorcycles	1
2019-05-22 09:45:00 East	Lane 2	Cars	87
2019-05-22 09:45:00 East	Lane 2	Light Goods Vehicle	12
2019-05-22 09:45:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 09:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 09:45:00 East	Lane 2	Buses	0
2019-05-22 09:45:00 East	Lane 2	Bicycles on Road	1
2019-05-22 10:00:00 West	Lane 1	Motorcycles	1
2019-05-22 10:00:00 West	Lane 1	Cars	80
2019-05-22 10:00:00 West	Lane 1	Light Goods Vehicle	17
2019-05-22 10:00:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 10:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 10:00:00 West	Lane 1	Buses	2
2019-05-22 10:00:00 West	Lane 1	Bicycles on Road	1
2019-05-22 10:00:00 West	Lane 2	Motorcycles	1
2019-05-22 10:00:00 West	Lane 2	Cars	80
2019-05-22 10:00:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 10:00:00 West	Lane 2	Single-Unit Trucks	5
2019-05-22 10:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 10:00:00 West	Lane 2	Buses	0
2019-05-22 10:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 10:00:00 East	Lane 1	Motorcycles	0
2019-05-22 10:00:00 East	Lane 1	Cars	68
2019-05-22 10:00:00 East	Lane 1	Light Goods Vehicle	8
2019-05-22 10:00:00 East	Lane 1	Single-Unit Trucks	5
2019-05-22 10:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 10:00:00 East	Lane 1	Buses	3
2019-05-22 10:00:00 East	Lane 1	Bicycles on Road	4

2019-05-22 10:00:00 East	Lane 2	Motorcycles	2
2019-05-22 10:00:00 East	Lane 2	Cars	77
2019-05-22 10:00:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 10:00:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 10:00:00 East	Lane 2	Articulated Trucks	1
2019-05-22 10:00:00 East	Lane 2	Buses	0
2019-05-22 10:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 10:15:00 West	Lane 1	Motorcycles	1
2019-05-22 10:15:00 West	Lane 1	Cars	81
2019-05-22 10:15:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 10:15:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 10:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 10:15:00 West	Lane 1	Buses	3
2019-05-22 10:15:00 West	Lane 1	Bicycles on Road	3
2019-05-22 10:15:00 West	Lane 2	Motorcycles	1
2019-05-22 10:15:00 West	Lane 2	Cars	65
2019-05-22 10:15:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 10:15:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 10:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 10:15:00 West	Lane 2	Buses	0
2019-05-22 10:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 10:15:00 East	Lane 1	Motorcycles	0
2019-05-22 10:15:00 East	Lane 1	Cars	73
2019-05-22 10:15:00 East	Lane 1	Light Goods Vehicle	8
2019-05-22 10:15:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 10:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 10:15:00 East	Lane 1	Buses	3
2019-05-22 10:15:00 East	Lane 1	Bicycles on Road	4
2019-05-22 10:15:00 East	Lane 2	Motorcycles	0
2019-05-22 10:15:00 East	Lane 2	Cars	72
2019-05-22 10:15:00 East	Lane 2	Light Goods Vehicle	10
2019-05-22 10:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 10:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 10:15:00 East	Lane 2	Buses	0
2019-05-22 10:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 10:30:00 West	Lane 1	Motorcycles	0
2019-05-22 10:30:00 West	Lane 1	Cars	89
2019-05-22 10:30:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 10:30:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 10:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 10:30:00 West	Lane 1	Buses	4
2019-05-22 10:30:00 West	Lane 1	Bicycles on Road	0
2019-05-22 10:30:00 West	Lane 2	Motorcycles	0
2019-05-22 10:30:00 West	Lane 2	Cars	55
2019-05-22 10:30:00 West	Lane 2	Light Goods Vehicle	6
2019-05-22 10:30:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 10:30:00 West	Lane 2	Articulated Trucks	0

2019-05-22 10:30:00 West	Lane 2	Buses	0
2019-05-22 10:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 10:30:00 East	Lane 1	Motorcycles	0
2019-05-22 10:30:00 East	Lane 1	Cars	60
2019-05-22 10:30:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 10:30:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 10:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 10:30:00 East	Lane 1	Buses	7
2019-05-22 10:30:00 East	Lane 1	Bicycles on Road	3
2019-05-22 10:30:00 East	Lane 2	Motorcycles	0
2019-05-22 10:30:00 East	Lane 2	Cars	47
2019-05-22 10:30:00 East	Lane 2	Light Goods Vehicle	2
2019-05-22 10:30:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 10:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 10:30:00 East	Lane 2	Buses	3
2019-05-22 10:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 10:45:00 West	Lane 1	Motorcycles	0
2019-05-22 10:45:00 West	Lane 1	Cars	84
2019-05-22 10:45:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 10:45:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 10:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 10:45:00 West	Lane 1	Buses	4
2019-05-22 10:45:00 West	Lane 1	Bicycles on Road	2
2019-05-22 10:45:00 West	Lane 2	Motorcycles	0
2019-05-22 10:45:00 West	Lane 2	Cars	84
2019-05-22 10:45:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 10:45:00 West	Lane 2	Single-Unit Trucks	4
2019-05-22 10:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 10:45:00 West	Lane 2	Buses	0
2019-05-22 10:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 10:45:00 East	Lane 1	Motorcycles	0
2019-05-22 10:45:00 East	Lane 1	Cars	69
2019-05-22 10:45:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 10:45:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 10:45:00 East	Lane 1	Articulated Trucks	1
2019-05-22 10:45:00 East	Lane 1	Buses	2
2019-05-22 10:45:00 East	Lane 1	Bicycles on Road	2
2019-05-22 10:45:00 East	Lane 2	Motorcycles	0
2019-05-22 10:45:00 East	Lane 2	Cars	75
2019-05-22 10:45:00 East	Lane 2	Light Goods Vehicle	8
2019-05-22 10:45:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 10:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 10:45:00 East	Lane 2	Buses	1
2019-05-22 10:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 11:00:00 West	Lane 1	Motorcycles	0
2019-05-22 11:00:00 West	Lane 1	Cars	74
2019-05-22 11:00:00 West	Lane 1	Light Goods Vehicle	8

2019-05-22 11:00:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 11:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 11:00:00 West	Lane 1	Buses	4
2019-05-22 11:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 11:00:00 West	Lane 2	Motorcycles	0
2019-05-22 11:00:00 West	Lane 2	Cars	63
2019-05-22 11:00:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 11:00:00 West	Lane 2	Single-Unit Trucks	4
2019-05-22 11:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 11:00:00 West	Lane 2	Buses	2
2019-05-22 11:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 11:00:00 East	Lane 1	Motorcycles	0
2019-05-22 11:00:00 East	Lane 1	Cars	75
2019-05-22 11:00:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 11:00:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 11:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 11:00:00 East	Lane 1	Buses	5
2019-05-22 11:00:00 East	Lane 1	Bicycles on Road	4
2019-05-22 11:00:00 East	Lane 2	Motorcycles	0
2019-05-22 11:00:00 East	Lane 2	Cars	58
2019-05-22 11:00:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 11:00:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 11:00:00 East	Lane 2	Articulated Trucks	1
2019-05-22 11:00:00 East	Lane 2	Buses	1
2019-05-22 11:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 11:15:00 West	Lane 1	Motorcycles	1
2019-05-22 11:15:00 West	Lane 1	Cars	77
2019-05-22 11:15:00 West	Lane 1	Light Goods Vehicle	4
2019-05-22 11:15:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 11:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 11:15:00 West	Lane 1	Buses	4
2019-05-22 11:15:00 West	Lane 1	Bicycles on Road	4
2019-05-22 11:15:00 West	Lane 2	Motorcycles	0
2019-05-22 11:15:00 West	Lane 2	Cars	84
2019-05-22 11:15:00 West	Lane 2	Light Goods Vehicle	11
2019-05-22 11:15:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 11:15:00 West	Lane 2	Articulated Trucks	1
2019-05-22 11:15:00 West	Lane 2	Buses	0
2019-05-22 11:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 11:15:00 East	Lane 1	Motorcycles	0
2019-05-22 11:15:00 East	Lane 1	Cars	67
2019-05-22 11:15:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 11:15:00 East	Lane 1	Single-Unit Trucks	7
2019-05-22 11:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 11:15:00 East	Lane 1	Buses	1
2019-05-22 11:15:00 East	Lane 1	Bicycles on Road	2
2019-05-22 11:15:00 East	Lane 2	Motorcycles	2

2019-05-22 11:15:00 East	Lane 2	Cars	61
2019-05-22 11:15:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 11:15:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 11:15:00 East	Lane 2	Articulated Trucks	1
2019-05-22 11:15:00 East	Lane 2	Buses	0
2019-05-22 11:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 11:30:00 West	Lane 1	Motorcycles	2
2019-05-22 11:30:00 West	Lane 1	Cars	83
2019-05-22 11:30:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 11:30:00 West	Lane 1	Single-Unit Trucks	4
2019-05-22 11:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 11:30:00 West	Lane 1	Buses	4
2019-05-22 11:30:00 West	Lane 1	Bicycles on Road	8
2019-05-22 11:30:00 West	Lane 2	Motorcycles	1
2019-05-22 11:30:00 West	Lane 2	Cars	77
2019-05-22 11:30:00 West	Lane 2	Light Goods Vehicle	12
2019-05-22 11:30:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 11:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 11:30:00 West	Lane 2	Buses	0
2019-05-22 11:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 11:30:00 East	Lane 1	Motorcycles	1
2019-05-22 11:30:00 East	Lane 1	Cars	58
2019-05-22 11:30:00 East	Lane 1	Light Goods Vehicle	2
2019-05-22 11:30:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 11:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 11:30:00 East	Lane 1	Buses	4
2019-05-22 11:30:00 East	Lane 1	Bicycles on Road	4
2019-05-22 11:30:00 East	Lane 2	Motorcycles	0
2019-05-22 11:30:00 East	Lane 2	Cars	66
2019-05-22 11:30:00 East	Lane 2	Light Goods Vehicle	8
2019-05-22 11:30:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 11:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 11:30:00 East	Lane 2	Buses	0
2019-05-22 11:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 11:45:00 West	Lane 1	Motorcycles	2
2019-05-22 11:45:00 West	Lane 1	Cars	86
2019-05-22 11:45:00 West	Lane 1	Light Goods Vehicle	12
2019-05-22 11:45:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 11:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 11:45:00 West	Lane 1	Buses	1
2019-05-22 11:45:00 West	Lane 1	Bicycles on Road	1
2019-05-22 11:45:00 West	Lane 2	Motorcycles	0
2019-05-22 11:45:00 West	Lane 2	Cars	91
2019-05-22 11:45:00 West	Lane 2	Light Goods Vehicle	12
2019-05-22 11:45:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 11:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 11:45:00 West	Lane 2	Buses	0

2019-05-22 11:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 11:45:00 East	Lane 1	Motorcycles	0
2019-05-22 11:45:00 East	Lane 1	Cars	74
2019-05-22 11:45:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 11:45:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 11:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 11:45:00 East	Lane 1	Buses	4
2019-05-22 11:45:00 East	Lane 1	Bicycles on Road	1
2019-05-22 11:45:00 East	Lane 2	Motorcycles	2
2019-05-22 11:45:00 East	Lane 2	Cars	83
2019-05-22 11:45:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 11:45:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 11:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 11:45:00 East	Lane 2	Buses	0
2019-05-22 11:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 12:00:00 West	Lane 1	Motorcycles	0
2019-05-22 12:00:00 West	Lane 1	Cars	90
2019-05-22 12:00:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 12:00:00 West	Lane 1	Single-Unit Trucks	4
2019-05-22 12:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 12:00:00 West	Lane 1	Buses	5
2019-05-22 12:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 12:00:00 West	Lane 2	Motorcycles	0
2019-05-22 12:00:00 West	Lane 2	Cars	81
2019-05-22 12:00:00 West	Lane 2	Light Goods Vehicle	12
2019-05-22 12:00:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 12:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 12:00:00 West	Lane 2	Buses	0
2019-05-22 12:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 12:00:00 East	Lane 1	Motorcycles	0
2019-05-22 12:00:00 East	Lane 1	Cars	70
2019-05-22 12:00:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 12:00:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 12:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 12:00:00 East	Lane 1	Buses	4
2019-05-22 12:00:00 East	Lane 1	Bicycles on Road	6
2019-05-22 12:00:00 East	Lane 2	Motorcycles	1
2019-05-22 12:00:00 East	Lane 2	Cars	63
2019-05-22 12:00:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 12:00:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 12:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 12:00:00 East	Lane 2	Buses	0
2019-05-22 12:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 12:15:00 West	Lane 1	Motorcycles	0
2019-05-22 12:15:00 West	Lane 1	Cars	91
2019-05-22 12:15:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 12:15:00 West	Lane 1	Single-Unit Trucks	3

2019-05-22 12:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 12:15:00 West	Lane 1	Buses	2
2019-05-22 12:15:00 West	Lane 1	Bicycles on Road	3
2019-05-22 12:15:00 West	Lane 2	Motorcycles	0
2019-05-22 12:15:00 West	Lane 2	Cars	80
2019-05-22 12:15:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 12:15:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 12:15:00 West	Lane 2	Articulated Trucks	1
2019-05-22 12:15:00 West	Lane 2	Buses	1
2019-05-22 12:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 12:15:00 East	Lane 1	Motorcycles	1
2019-05-22 12:15:00 East	Lane 1	Cars	80
2019-05-22 12:15:00 East	Lane 1	Light Goods Vehicle	4
2019-05-22 12:15:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 12:15:00 East	Lane 1	Articulated Trucks	1
2019-05-22 12:15:00 East	Lane 1	Buses	1
2019-05-22 12:15:00 East	Lane 1	Bicycles on Road	1
2019-05-22 12:15:00 East	Lane 2	Motorcycles	0
2019-05-22 12:15:00 East	Lane 2	Cars	59
2019-05-22 12:15:00 East	Lane 2	Light Goods Vehicle	7
2019-05-22 12:15:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 12:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 12:15:00 East	Lane 2	Buses	1
2019-05-22 12:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 12:30:00 West	Lane 1	Motorcycles	1
2019-05-22 12:30:00 West	Lane 1	Cars	103
2019-05-22 12:30:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 12:30:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 12:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 12:30:00 West	Lane 1	Buses	2
2019-05-22 12:30:00 West	Lane 1	Bicycles on Road	3
2019-05-22 12:30:00 West	Lane 2	Motorcycles	0
2019-05-22 12:30:00 West	Lane 2	Cars	92
2019-05-22 12:30:00 West	Lane 2	Light Goods Vehicle	11
2019-05-22 12:30:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 12:30:00 West	Lane 2	Articulated Trucks	1
2019-05-22 12:30:00 West	Lane 2	Buses	1
2019-05-22 12:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 12:30:00 East	Lane 1	Motorcycles	0
2019-05-22 12:30:00 East	Lane 1	Cars	77
2019-05-22 12:30:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 12:30:00 East	Lane 1	Single-Unit Trucks	5
2019-05-22 12:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 12:30:00 East	Lane 1	Buses	3
2019-05-22 12:30:00 East	Lane 1	Bicycles on Road	3
2019-05-22 12:30:00 East	Lane 2	Motorcycles	0
2019-05-22 12:30:00 East	Lane 2	Cars	75

2019-05-22 12:30:00 East	Lane 2	Light Goods Vehicle	9
2019-05-22 12:30:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 12:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 12:30:00 East	Lane 2	Buses	0
2019-05-22 12:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 12:45:00 West	Lane 1	Motorcycles	0
2019-05-22 12:45:00 West	Lane 1	Cars	90
2019-05-22 12:45:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 12:45:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 12:45:00 West	Lane 1	Articulated Trucks	1
2019-05-22 12:45:00 West	Lane 1	Buses	2
2019-05-22 12:45:00 West	Lane 1	Bicycles on Road	5
2019-05-22 12:45:00 West	Lane 2	Motorcycles	0
2019-05-22 12:45:00 West	Lane 2	Cars	77
2019-05-22 12:45:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 12:45:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 12:45:00 West	Lane 2	Articulated Trucks	1
2019-05-22 12:45:00 West	Lane 2	Buses	0
2019-05-22 12:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 12:45:00 East	Lane 1	Motorcycles	1
2019-05-22 12:45:00 East	Lane 1	Cars	81
2019-05-22 12:45:00 East	Lane 1	Light Goods Vehicle	13
2019-05-22 12:45:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 12:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 12:45:00 East	Lane 1	Buses	2
2019-05-22 12:45:00 East	Lane 1	Bicycles on Road	2
2019-05-22 12:45:00 East	Lane 2	Motorcycles	0
2019-05-22 12:45:00 East	Lane 2	Cars	65
2019-05-22 12:45:00 East	Lane 2	Light Goods Vehicle	16
2019-05-22 12:45:00 East	Lane 2	Single-Unit Trucks	6
2019-05-22 12:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 12:45:00 East	Lane 2	Buses	0
2019-05-22 12:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 13:00:00 West	Lane 1	Motorcycles	4
2019-05-22 13:00:00 West	Lane 1	Cars	93
2019-05-22 13:00:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 13:00:00 West	Lane 1	Single-Unit Trucks	4
2019-05-22 13:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 13:00:00 West	Lane 1	Buses	3
2019-05-22 13:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 13:00:00 West	Lane 2	Motorcycles	1
2019-05-22 13:00:00 West	Lane 2	Cars	64
2019-05-22 13:00:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 13:00:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 13:00:00 West	Lane 2	Articulated Trucks	1
2019-05-22 13:00:00 West	Lane 2	Buses	0
2019-05-22 13:00:00 West	Lane 2	Bicycles on Road	0

2019-05-22 13:00:00 East	Lane 1	Motorcycles	2
2019-05-22 13:00:00 East	Lane 1	Cars	69
2019-05-22 13:00:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 13:00:00 East	Lane 1	Single-Unit Trucks	6
2019-05-22 13:00:00 East	Lane 1	Articulated Trucks	1
2019-05-22 13:00:00 East	Lane 1	Buses	6
2019-05-22 13:00:00 East	Lane 1	Bicycles on Road	2
2019-05-22 13:00:00 East	Lane 2	Motorcycles	0
2019-05-22 13:00:00 East	Lane 2	Cars	70
2019-05-22 13:00:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 13:00:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 13:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 13:00:00 East	Lane 2	Buses	1
2019-05-22 13:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 13:15:00 West	Lane 1	Motorcycles	0
2019-05-22 13:15:00 West	Lane 1	Cars	104
2019-05-22 13:15:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 13:15:00 West	Lane 1	Single-Unit Trucks	7
2019-05-22 13:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 13:15:00 West	Lane 1	Buses	1
2019-05-22 13:15:00 West	Lane 1	Bicycles on Road	5
2019-05-22 13:15:00 West	Lane 2	Motorcycles	0
2019-05-22 13:15:00 West	Lane 2	Cars	73
2019-05-22 13:15:00 West	Lane 2	Light Goods Vehicle	10
2019-05-22 13:15:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 13:15:00 West	Lane 2	Articulated Trucks	1
2019-05-22 13:15:00 West	Lane 2	Buses	1
2019-05-22 13:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 13:15:00 East	Lane 1	Motorcycles	0
2019-05-22 13:15:00 East	Lane 1	Cars	78
2019-05-22 13:15:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 13:15:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 13:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 13:15:00 East	Lane 1	Buses	3
2019-05-22 13:15:00 East	Lane 1	Bicycles on Road	2
2019-05-22 13:15:00 East	Lane 2	Motorcycles	0
2019-05-22 13:15:00 East	Lane 2	Cars	76
2019-05-22 13:15:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 13:15:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 13:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 13:15:00 East	Lane 2	Buses	1
2019-05-22 13:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 13:30:00 West	Lane 1	Motorcycles	0
2019-05-22 13:30:00 West	Lane 1	Cars	90
2019-05-22 13:30:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 13:30:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 13:30:00 West	Lane 1	Articulated Trucks	0

2019-05-22 13:30:00 West	Lane 1	Buses	5
2019-05-22 13:30:00 West	Lane 1	Bicycles on Road	6
2019-05-22 13:30:00 West	Lane 2	Motorcycles	0
2019-05-22 13:30:00 West	Lane 2	Cars	83
2019-05-22 13:30:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 13:30:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 13:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 13:30:00 West	Lane 2	Buses	0
2019-05-22 13:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 13:30:00 East	Lane 1	Motorcycles	0
2019-05-22 13:30:00 East	Lane 1	Cars	84
2019-05-22 13:30:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 13:30:00 East	Lane 1	Single-Unit Trucks	6
2019-05-22 13:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 13:30:00 East	Lane 1	Buses	4
2019-05-22 13:30:00 East	Lane 1	Bicycles on Road	1
2019-05-22 13:30:00 East	Lane 2	Motorcycles	1
2019-05-22 13:30:00 East	Lane 2	Cars	64
2019-05-22 13:30:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 13:30:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 13:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 13:30:00 East	Lane 2	Buses	0
2019-05-22 13:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 13:45:00 West	Lane 1	Motorcycles	0
2019-05-22 13:45:00 West	Lane 1	Cars	95
2019-05-22 13:45:00 West	Lane 1	Light Goods Vehicle	4
2019-05-22 13:45:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 13:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 13:45:00 West	Lane 1	Buses	1
2019-05-22 13:45:00 West	Lane 1	Bicycles on Road	1
2019-05-22 13:45:00 West	Lane 2	Motorcycles	0
2019-05-22 13:45:00 West	Lane 2	Cars	70
2019-05-22 13:45:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 13:45:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 13:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 13:45:00 West	Lane 2	Buses	2
2019-05-22 13:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 13:45:00 East	Lane 1	Motorcycles	0
2019-05-22 13:45:00 East	Lane 1	Cars	87
2019-05-22 13:45:00 East	Lane 1	Light Goods Vehicle	3
2019-05-22 13:45:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 13:45:00 East	Lane 1	Articulated Trucks	2
2019-05-22 13:45:00 East	Lane 1	Buses	2
2019-05-22 13:45:00 East	Lane 1	Bicycles on Road	2
2019-05-22 13:45:00 East	Lane 2	Motorcycles	0
2019-05-22 13:45:00 East	Lane 2	Cars	70
2019-05-22 13:45:00 East	Lane 2	Light Goods Vehicle	5

2019-05-22 13:45:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 13:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 13:45:00 East	Lane 2	Buses	1
2019-05-22 13:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 14:00:00 West	Lane 1	Motorcycles	3
2019-05-22 14:00:00 West	Lane 1	Cars	75
2019-05-22 14:00:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 14:00:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 14:00:00 West	Lane 1	Articulated Trucks	1
2019-05-22 14:00:00 West	Lane 1	Buses	2
2019-05-22 14:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 14:00:00 West	Lane 2	Motorcycles	1
2019-05-22 14:00:00 West	Lane 2	Cars	99
2019-05-22 14:00:00 West	Lane 2	Light Goods Vehicle	11
2019-05-22 14:00:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 14:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 14:00:00 West	Lane 2	Buses	0
2019-05-22 14:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 14:00:00 East	Lane 1	Motorcycles	1
2019-05-22 14:00:00 East	Lane 1	Cars	95
2019-05-22 14:00:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 14:00:00 East	Lane 1	Single-Unit Trucks	5
2019-05-22 14:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 14:00:00 East	Lane 1	Buses	5
2019-05-22 14:00:00 East	Lane 1	Bicycles on Road	0
2019-05-22 14:00:00 East	Lane 2	Motorcycles	1
2019-05-22 14:00:00 East	Lane 2	Cars	58
2019-05-22 14:00:00 East	Lane 2	Light Goods Vehicle	7
2019-05-22 14:00:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 14:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 14:00:00 East	Lane 2	Buses	0
2019-05-22 14:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 14:15:00 West	Lane 1	Motorcycles	0
2019-05-22 14:15:00 West	Lane 1	Cars	94
2019-05-22 14:15:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 14:15:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 14:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 14:15:00 West	Lane 1	Buses	4
2019-05-22 14:15:00 West	Lane 1	Bicycles on Road	8
2019-05-22 14:15:00 West	Lane 2	Motorcycles	0
2019-05-22 14:15:00 West	Lane 2	Cars	70
2019-05-22 14:15:00 West	Lane 2	Light Goods Vehicle	13
2019-05-22 14:15:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 14:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 14:15:00 West	Lane 2	Buses	0
2019-05-22 14:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 14:15:00 East	Lane 1	Motorcycles	0

2019-05-22 14:15:00 East	Lane 1	Cars	104
2019-05-22 14:15:00 East	Lane 1	Light Goods Vehicle	10
2019-05-22 14:15:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 14:15:00 East	Lane 1	Articulated Trucks	1
2019-05-22 14:15:00 East	Lane 1	Buses	4
2019-05-22 14:15:00 East	Lane 1	Bicycles on Road	4
2019-05-22 14:15:00 East	Lane 2	Motorcycles	0
2019-05-22 14:15:00 East	Lane 2	Cars	60
2019-05-22 14:15:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 14:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 14:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 14:15:00 East	Lane 2	Buses	0
2019-05-22 14:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 14:30:00 West	Lane 1	Motorcycles	1
2019-05-22 14:30:00 West	Lane 1	Cars	101
2019-05-22 14:30:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 14:30:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 14:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 14:30:00 West	Lane 1	Buses	4
2019-05-22 14:30:00 West	Lane 1	Bicycles on Road	8
2019-05-22 14:30:00 West	Lane 2	Motorcycles	0
2019-05-22 14:30:00 West	Lane 2	Cars	98
2019-05-22 14:30:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 14:30:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 14:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 14:30:00 West	Lane 2	Buses	0
2019-05-22 14:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 14:30:00 East	Lane 1	Motorcycles	3
2019-05-22 14:30:00 East	Lane 1	Cars	98
2019-05-22 14:30:00 East	Lane 1	Light Goods Vehicle	8
2019-05-22 14:30:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 14:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 14:30:00 East	Lane 1	Buses	2
2019-05-22 14:30:00 East	Lane 1	Bicycles on Road	4
2019-05-22 14:30:00 East	Lane 2	Motorcycles	0
2019-05-22 14:30:00 East	Lane 2	Cars	67
2019-05-22 14:30:00 East	Lane 2	Light Goods Vehicle	9
2019-05-22 14:30:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 14:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 14:30:00 East	Lane 2	Buses	1
2019-05-22 14:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 14:45:00 West	Lane 1	Motorcycles	1
2019-05-22 14:45:00 West	Lane 1	Cars	101
2019-05-22 14:45:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 14:45:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 14:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 14:45:00 West	Lane 1	Buses	3

2019-05-22 14:45:00 West	Lane 1	Bicycles on Road	3
2019-05-22 14:45:00 West	Lane 2	Motorcycles	1
2019-05-22 14:45:00 West	Lane 2	Cars	98
2019-05-22 14:45:00 West	Lane 2	Light Goods Vehicle	6
2019-05-22 14:45:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 14:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 14:45:00 West	Lane 2	Buses	1
2019-05-22 14:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 14:45:00 East	Lane 1	Motorcycles	2
2019-05-22 14:45:00 East	Lane 1	Cars	107
2019-05-22 14:45:00 East	Lane 1	Light Goods Vehicle	9
2019-05-22 14:45:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 14:45:00 East	Lane 1	Articulated Trucks	1
2019-05-22 14:45:00 East	Lane 1	Buses	7
2019-05-22 14:45:00 East	Lane 1	Bicycles on Road	1
2019-05-22 14:45:00 East	Lane 2	Motorcycles	0
2019-05-22 14:45:00 East	Lane 2	Cars	78
2019-05-22 14:45:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 14:45:00 East	Lane 2	Single-Unit Trucks	3
2019-05-22 14:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 14:45:00 East	Lane 2	Buses	0
2019-05-22 14:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 15:00:00 West	Lane 1	Motorcycles	2
2019-05-22 15:00:00 West	Lane 1	Cars	144
2019-05-22 15:00:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 15:00:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 15:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 15:00:00 West	Lane 1	Buses	1
2019-05-22 15:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 15:00:00 West	Lane 2	Motorcycles	1
2019-05-22 15:00:00 West	Lane 2	Cars	105
2019-05-22 15:00:00 West	Lane 2	Light Goods Vehicle	11
2019-05-22 15:00:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 15:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 15:00:00 West	Lane 2	Buses	0
2019-05-22 15:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 15:00:00 East	Lane 1	Motorcycles	3
2019-05-22 15:00:00 East	Lane 1	Cars	135
2019-05-22 15:00:00 East	Lane 1	Light Goods Vehicle	5
2019-05-22 15:00:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 15:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 15:00:00 East	Lane 1	Buses	5
2019-05-22 15:00:00 East	Lane 1	Bicycles on Road	1
2019-05-22 15:00:00 East	Lane 2	Motorcycles	1
2019-05-22 15:00:00 East	Lane 2	Cars	77
2019-05-22 15:00:00 East	Lane 2	Light Goods Vehicle	7
2019-05-22 15:00:00 East	Lane 2	Single-Unit Trucks	0

2019-05-22 15:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 15:00:00 East	Lane 2	Buses	3
2019-05-22 15:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 15:15:00 West	Lane 1	Motorcycles	2
2019-05-22 15:15:00 West	Lane 1	Cars	121
2019-05-22 15:15:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 15:15:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 15:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 15:15:00 West	Lane 1	Buses	4
2019-05-22 15:15:00 West	Lane 1	Bicycles on Road	8
2019-05-22 15:15:00 West	Lane 2	Motorcycles	0
2019-05-22 15:15:00 West	Lane 2	Cars	119
2019-05-22 15:15:00 West	Lane 2	Light Goods Vehicle	5
2019-05-22 15:15:00 West	Lane 2	Single-Unit Trucks	2
2019-05-22 15:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 15:15:00 West	Lane 2	Buses	2
2019-05-22 15:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 15:15:00 East	Lane 1	Motorcycles	3
2019-05-22 15:15:00 East	Lane 1	Cars	162
2019-05-22 15:15:00 East	Lane 1	Light Goods Vehicle	12
2019-05-22 15:15:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 15:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 15:15:00 East	Lane 1	Buses	5
2019-05-22 15:15:00 East	Lane 1	Bicycles on Road	2
2019-05-22 15:15:00 East	Lane 2	Motorcycles	0
2019-05-22 15:15:00 East	Lane 2	Cars	85
2019-05-22 15:15:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 15:15:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 15:15:00 East	Lane 2	Articulated Trucks	1
2019-05-22 15:15:00 East	Lane 2	Buses	0
2019-05-22 15:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 15:30:00 West	Lane 1	Motorcycles	1
2019-05-22 15:30:00 West	Lane 1	Cars	128
2019-05-22 15:30:00 West	Lane 1	Light Goods Vehicle	11
2019-05-22 15:30:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 15:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 15:30:00 West	Lane 1	Buses	2
2019-05-22 15:30:00 West	Lane 1	Bicycles on Road	4
2019-05-22 15:30:00 West	Lane 2	Motorcycles	0
2019-05-22 15:30:00 West	Lane 2	Cars	83
2019-05-22 15:30:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 15:30:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 15:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 15:30:00 West	Lane 2	Buses	1
2019-05-22 15:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 15:30:00 East	Lane 1	Motorcycles	1
2019-05-22 15:30:00 East	Lane 1	Cars	187

2019-05-22 15:30:00 East	Lane 1	Light Goods Vehicle	13
2019-05-22 15:30:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 15:30:00 East	Lane 1	Articulated Trucks	1
2019-05-22 15:30:00 East	Lane 1	Buses	6
2019-05-22 15:30:00 East	Lane 1	Bicycles on Road	2
2019-05-22 15:30:00 East	Lane 2	Motorcycles	3
2019-05-22 15:30:00 East	Lane 2	Cars	107
2019-05-22 15:30:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 15:30:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 15:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 15:30:00 East	Lane 2	Buses	1
2019-05-22 15:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 15:45:00 West	Lane 1	Motorcycles	4
2019-05-22 15:45:00 West	Lane 1	Cars	147
2019-05-22 15:45:00 West	Lane 1	Light Goods Vehicle	9
2019-05-22 15:45:00 West	Lane 1	Single-Unit Trucks	4
2019-05-22 15:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 15:45:00 West	Lane 1	Buses	4
2019-05-22 15:45:00 West	Lane 1	Bicycles on Road	5
2019-05-22 15:45:00 West	Lane 2	Motorcycles	0
2019-05-22 15:45:00 West	Lane 2	Cars	105
2019-05-22 15:45:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 15:45:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 15:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 15:45:00 West	Lane 2	Buses	2
2019-05-22 15:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 15:45:00 East	Lane 1	Motorcycles	4
2019-05-22 15:45:00 East	Lane 1	Cars	187
2019-05-22 15:45:00 East	Lane 1	Light Goods Vehicle	8
2019-05-22 15:45:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 15:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 15:45:00 East	Lane 1	Buses	10
2019-05-22 15:45:00 East	Lane 1	Bicycles on Road	4
2019-05-22 15:45:00 East	Lane 2	Motorcycles	0
2019-05-22 15:45:00 East	Lane 2	Cars	102
2019-05-22 15:45:00 East	Lane 2	Light Goods Vehicle	11
2019-05-22 15:45:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 15:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 15:45:00 East	Lane 2	Buses	2
2019-05-22 15:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 16:00:00 West	Lane 1	Motorcycles	6
2019-05-22 16:00:00 West	Lane 1	Cars	141
2019-05-22 16:00:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 16:00:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 16:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 16:00:00 West	Lane 1	Buses	4
2019-05-22 16:00:00 West	Lane 1	Bicycles on Road	4

2019-05-22 16:00:00 West	Lane 2	Motorcycles	1
2019-05-22 16:00:00 West	Lane 2	Cars	127
2019-05-22 16:00:00 West	Lane 2	Light Goods Vehicle	9
2019-05-22 16:00:00 West	Lane 2	Single-Unit Trucks	4
2019-05-22 16:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 16:00:00 West	Lane 2	Buses	0
2019-05-22 16:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 16:00:00 East	Lane 1	Motorcycles	4
2019-05-22 16:00:00 East	Lane 1	Cars	198
2019-05-22 16:00:00 East	Lane 1	Light Goods Vehicle	13
2019-05-22 16:00:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 16:00:00 East	Lane 1	Articulated Trucks	1
2019-05-22 16:00:00 East	Lane 1	Buses	3
2019-05-22 16:00:00 East	Lane 1	Bicycles on Road	4
2019-05-22 16:00:00 East	Lane 2	Motorcycles	2
2019-05-22 16:00:00 East	Lane 2	Cars	98
2019-05-22 16:00:00 East	Lane 2	Light Goods Vehicle	8
2019-05-22 16:00:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 16:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 16:00:00 East	Lane 2	Buses	1
2019-05-22 16:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 16:15:00 West	Lane 1	Motorcycles	6
2019-05-22 16:15:00 West	Lane 1	Cars	147
2019-05-22 16:15:00 West	Lane 1	Light Goods Vehicle	10
2019-05-22 16:15:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 16:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 16:15:00 West	Lane 1	Buses	8
2019-05-22 16:15:00 West	Lane 1	Bicycles on Road	4
2019-05-22 16:15:00 West	Lane 2	Motorcycles	2
2019-05-22 16:15:00 West	Lane 2	Cars	132
2019-05-22 16:15:00 West	Lane 2	Light Goods Vehicle	13
2019-05-22 16:15:00 West	Lane 2	Single-Unit Trucks	3
2019-05-22 16:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 16:15:00 West	Lane 2	Buses	2
2019-05-22 16:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 16:15:00 East	Lane 1	Motorcycles	0
2019-05-22 16:15:00 East	Lane 1	Cars	185
2019-05-22 16:15:00 East	Lane 1	Light Goods Vehicle	9
2019-05-22 16:15:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 16:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 16:15:00 East	Lane 1	Buses	3
2019-05-22 16:15:00 East	Lane 1	Bicycles on Road	3
2019-05-22 16:15:00 East	Lane 2	Motorcycles	0
2019-05-22 16:15:00 East	Lane 2	Cars	106
2019-05-22 16:15:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 16:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 16:15:00 East	Lane 2	Articulated Trucks	0

2019-05-22 16:15:00 East	Lane 2	Buses	3
2019-05-22 16:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 16:30:00 West	Lane 1	Motorcycles	0
2019-05-22 16:30:00 West	Lane 1	Cars	134
2019-05-22 16:30:00 West	Lane 1	Light Goods Vehicle	9
2019-05-22 16:30:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 16:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 16:30:00 West	Lane 1	Buses	5
2019-05-22 16:30:00 West	Lane 1	Bicycles on Road	7
2019-05-22 16:30:00 West	Lane 2	Motorcycles	0
2019-05-22 16:30:00 West	Lane 2	Cars	127
2019-05-22 16:30:00 West	Lane 2	Light Goods Vehicle	3
2019-05-22 16:30:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 16:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 16:30:00 West	Lane 2	Buses	0
2019-05-22 16:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 16:30:00 East	Lane 1	Motorcycles	1
2019-05-22 16:30:00 East	Lane 1	Cars	171
2019-05-22 16:30:00 East	Lane 1	Light Goods Vehicle	13
2019-05-22 16:30:00 East	Lane 1	Single-Unit Trucks	2
2019-05-22 16:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 16:30:00 East	Lane 1	Buses	6
2019-05-22 16:30:00 East	Lane 1	Bicycles on Road	5
2019-05-22 16:30:00 East	Lane 2	Motorcycles	1
2019-05-22 16:30:00 East	Lane 2	Cars	109
2019-05-22 16:30:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 16:30:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 16:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 16:30:00 East	Lane 2	Buses	0
2019-05-22 16:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 16:45:00 West	Lane 1	Motorcycles	2
2019-05-22 16:45:00 West	Lane 1	Cars	133
2019-05-22 16:45:00 West	Lane 1	Light Goods Vehicle	8
2019-05-22 16:45:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 16:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 16:45:00 West	Lane 1	Buses	6
2019-05-22 16:45:00 West	Lane 1	Bicycles on Road	13
2019-05-22 16:45:00 West	Lane 2	Motorcycles	2
2019-05-22 16:45:00 West	Lane 2	Cars	107
2019-05-22 16:45:00 West	Lane 2	Light Goods Vehicle	6
2019-05-22 16:45:00 West	Lane 2	Single-Unit Trucks	4
2019-05-22 16:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 16:45:00 West	Lane 2	Buses	0
2019-05-22 16:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 16:45:00 East	Lane 1	Motorcycles	1
2019-05-22 16:45:00 East	Lane 1	Cars	167
2019-05-22 16:45:00 East	Lane 1	Light Goods Vehicle	10

2019-05-22 16:45:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 16:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 16:45:00 East	Lane 1	Buses	1
2019-05-22 16:45:00 East	Lane 1	Bicycles on Road	6
2019-05-22 16:45:00 East	Lane 2	Motorcycles	1
2019-05-22 16:45:00 East	Lane 2	Cars	112
2019-05-22 16:45:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 16:45:00 East	Lane 2	Single-Unit Trucks	2
2019-05-22 16:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 16:45:00 East	Lane 2	Buses	0
2019-05-22 16:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 17:00:00 West	Lane 1	Motorcycles	2
2019-05-22 17:00:00 West	Lane 1	Cars	142
2019-05-22 17:00:00 West	Lane 1	Light Goods Vehicle	11
2019-05-22 17:00:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 17:00:00 West	Lane 1	Articulated Trucks	1
2019-05-22 17:00:00 West	Lane 1	Buses	4
2019-05-22 17:00:00 West	Lane 1	Bicycles on Road	9
2019-05-22 17:00:00 West	Lane 2	Motorcycles	1
2019-05-22 17:00:00 West	Lane 2	Cars	122
2019-05-22 17:00:00 West	Lane 2	Light Goods Vehicle	6
2019-05-22 17:00:00 West	Lane 2	Single-Unit Trucks	0
2019-05-22 17:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 17:00:00 West	Lane 2	Buses	0
2019-05-22 17:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 17:00:00 East	Lane 1	Motorcycles	3
2019-05-22 17:00:00 East	Lane 1	Cars	165
2019-05-22 17:00:00 East	Lane 1	Light Goods Vehicle	10
2019-05-22 17:00:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 17:00:00 East	Lane 1	Articulated Trucks	1
2019-05-22 17:00:00 East	Lane 1	Buses	7
2019-05-22 17:00:00 East	Lane 1	Bicycles on Road	2
2019-05-22 17:00:00 East	Lane 2	Motorcycles	2
2019-05-22 17:00:00 East	Lane 2	Cars	108
2019-05-22 17:00:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 17:00:00 East	Lane 2	Single-Unit Trucks	1
2019-05-22 17:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 17:00:00 East	Lane 2	Buses	0
2019-05-22 17:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 17:15:00 West	Lane 1	Motorcycles	2
2019-05-22 17:15:00 West	Lane 1	Cars	142
2019-05-22 17:15:00 West	Lane 1	Light Goods Vehicle	7
2019-05-22 17:15:00 West	Lane 1	Single-Unit Trucks	3
2019-05-22 17:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 17:15:00 West	Lane 1	Buses	3
2019-05-22 17:15:00 West	Lane 1	Bicycles on Road	11
2019-05-22 17:15:00 West	Lane 2	Motorcycles	0

2019-05-22 17:15:00 West	Lane 2	Cars	118
2019-05-22 17:15:00 West	Lane 2	Light Goods Vehicle	5
2019-05-22 17:15:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 17:15:00 West	Lane 2	Articulated Trucks	1
2019-05-22 17:15:00 West	Lane 2	Buses	1
2019-05-22 17:15:00 West	Lane 2	Bicycles on Road	1
2019-05-22 17:15:00 East	Lane 1	Motorcycles	3
2019-05-22 17:15:00 East	Lane 1	Cars	170
2019-05-22 17:15:00 East	Lane 1	Light Goods Vehicle	12
2019-05-22 17:15:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 17:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 17:15:00 East	Lane 1	Buses	0
2019-05-22 17:15:00 East	Lane 1	Bicycles on Road	9
2019-05-22 17:15:00 East	Lane 2	Motorcycles	1
2019-05-22 17:15:00 East	Lane 2	Cars	87
2019-05-22 17:15:00 East	Lane 2	Light Goods Vehicle	6
2019-05-22 17:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 17:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 17:15:00 East	Lane 2	Buses	1
2019-05-22 17:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 17:30:00 West	Lane 1	Motorcycles	0
2019-05-22 17:30:00 West	Lane 1	Cars	132
2019-05-22 17:30:00 West	Lane 1	Light Goods Vehicle	6
2019-05-22 17:30:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 17:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 17:30:00 West	Lane 1	Buses	3
2019-05-22 17:30:00 West	Lane 1	Bicycles on Road	7
2019-05-22 17:30:00 West	Lane 2	Motorcycles	0
2019-05-22 17:30:00 West	Lane 2	Cars	112
2019-05-22 17:30:00 West	Lane 2	Light Goods Vehicle	8
2019-05-22 17:30:00 West	Lane 2	Single-Unit Trucks	0
2019-05-22 17:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 17:30:00 West	Lane 2	Buses	0
2019-05-22 17:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 17:30:00 East	Lane 1	Motorcycles	0
2019-05-22 17:30:00 East	Lane 1	Cars	144
2019-05-22 17:30:00 East	Lane 1	Light Goods Vehicle	4
2019-05-22 17:30:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 17:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 17:30:00 East	Lane 1	Buses	8
2019-05-22 17:30:00 East	Lane 1	Bicycles on Road	8
2019-05-22 17:30:00 East	Lane 2	Motorcycles	0
2019-05-22 17:30:00 East	Lane 2	Cars	116
2019-05-22 17:30:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 17:30:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 17:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 17:30:00 East	Lane 2	Buses	0

2019-05-22 17:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 17:45:00 West	Lane 1	Motorcycles	2
2019-05-22 17:45:00 West	Lane 1	Cars	139
2019-05-22 17:45:00 West	Lane 1	Light Goods Vehicle	3
2019-05-22 17:45:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 17:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 17:45:00 West	Lane 1	Buses	8
2019-05-22 17:45:00 West	Lane 1	Bicycles on Road	12
2019-05-22 17:45:00 West	Lane 2	Motorcycles	3
2019-05-22 17:45:00 West	Lane 2	Cars	107
2019-05-22 17:45:00 West	Lane 2	Light Goods Vehicle	3
2019-05-22 17:45:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 17:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 17:45:00 West	Lane 2	Buses	1
2019-05-22 17:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 17:45:00 East	Lane 1	Motorcycles	1
2019-05-22 17:45:00 East	Lane 1	Cars	133
2019-05-22 17:45:00 East	Lane 1	Light Goods Vehicle	4
2019-05-22 17:45:00 East	Lane 1	Single-Unit Trucks	3
2019-05-22 17:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 17:45:00 East	Lane 1	Buses	3
2019-05-22 17:45:00 East	Lane 1	Bicycles on Road	2
2019-05-22 17:45:00 East	Lane 2	Motorcycles	0
2019-05-22 17:45:00 East	Lane 2	Cars	83
2019-05-22 17:45:00 East	Lane 2	Light Goods Vehicle	3
2019-05-22 17:45:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 17:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 17:45:00 East	Lane 2	Buses	0
2019-05-22 17:45:00 East	Lane 2	Bicycles on Road	0
2019-05-22 18:00:00 West	Lane 1	Motorcycles	0
2019-05-22 18:00:00 West	Lane 1	Cars	132
2019-05-22 18:00:00 West	Lane 1	Light Goods Vehicle	4
2019-05-22 18:00:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 18:00:00 West	Lane 1	Articulated Trucks	0
2019-05-22 18:00:00 West	Lane 1	Buses	4
2019-05-22 18:00:00 West	Lane 1	Bicycles on Road	2
2019-05-22 18:00:00 West	Lane 2	Motorcycles	0
2019-05-22 18:00:00 West	Lane 2	Cars	97
2019-05-22 18:00:00 West	Lane 2	Light Goods Vehicle	7
2019-05-22 18:00:00 West	Lane 2	Single-Unit Trucks	1
2019-05-22 18:00:00 West	Lane 2	Articulated Trucks	0
2019-05-22 18:00:00 West	Lane 2	Buses	0
2019-05-22 18:00:00 West	Lane 2	Bicycles on Road	0
2019-05-22 18:00:00 East	Lane 1	Motorcycles	0
2019-05-22 18:00:00 East	Lane 1	Cars	116
2019-05-22 18:00:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 18:00:00 East	Lane 1	Single-Unit Trucks	1

2019-05-22 18:00:00 East	Lane 1	Articulated Trucks	0
2019-05-22 18:00:00 East	Lane 1	Buses	2
2019-05-22 18:00:00 East	Lane 1	Bicycles on Road	2
2019-05-22 18:00:00 East	Lane 2	Motorcycles	0
2019-05-22 18:00:00 East	Lane 2	Cars	84
2019-05-22 18:00:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 18:00:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 18:00:00 East	Lane 2	Articulated Trucks	0
2019-05-22 18:00:00 East	Lane 2	Buses	0
2019-05-22 18:00:00 East	Lane 2	Bicycles on Road	0
2019-05-22 18:15:00 West	Lane 1	Motorcycles	0
2019-05-22 18:15:00 West	Lane 1	Cars	118
2019-05-22 18:15:00 West	Lane 1	Light Goods Vehicle	5
2019-05-22 18:15:00 West	Lane 1	Single-Unit Trucks	2
2019-05-22 18:15:00 West	Lane 1	Articulated Trucks	0
2019-05-22 18:15:00 West	Lane 1	Buses	1
2019-05-22 18:15:00 West	Lane 1	Bicycles on Road	5
2019-05-22 18:15:00 West	Lane 2	Motorcycles	0
2019-05-22 18:15:00 West	Lane 2	Cars	99
2019-05-22 18:15:00 West	Lane 2	Light Goods Vehicle	4
2019-05-22 18:15:00 West	Lane 2	Single-Unit Trucks	0
2019-05-22 18:15:00 West	Lane 2	Articulated Trucks	0
2019-05-22 18:15:00 West	Lane 2	Buses	0
2019-05-22 18:15:00 West	Lane 2	Bicycles on Road	0
2019-05-22 18:15:00 East	Lane 1	Motorcycles	3
2019-05-22 18:15:00 East	Lane 1	Cars	93
2019-05-22 18:15:00 East	Lane 1	Light Goods Vehicle	9
2019-05-22 18:15:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 18:15:00 East	Lane 1	Articulated Trucks	0
2019-05-22 18:15:00 East	Lane 1	Buses	3
2019-05-22 18:15:00 East	Lane 1	Bicycles on Road	1
2019-05-22 18:15:00 East	Lane 2	Motorcycles	0
2019-05-22 18:15:00 East	Lane 2	Cars	78
2019-05-22 18:15:00 East	Lane 2	Light Goods Vehicle	5
2019-05-22 18:15:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 18:15:00 East	Lane 2	Articulated Trucks	0
2019-05-22 18:15:00 East	Lane 2	Buses	0
2019-05-22 18:15:00 East	Lane 2	Bicycles on Road	0
2019-05-22 18:30:00 West	Lane 1	Motorcycles	0
2019-05-22 18:30:00 West	Lane 1	Cars	97
2019-05-22 18:30:00 West	Lane 1	Light Goods Vehicle	0
2019-05-22 18:30:00 West	Lane 1	Single-Unit Trucks	1
2019-05-22 18:30:00 West	Lane 1	Articulated Trucks	0
2019-05-22 18:30:00 West	Lane 1	Buses	4
2019-05-22 18:30:00 West	Lane 1	Bicycles on Road	5
2019-05-22 18:30:00 West	Lane 2	Motorcycles	0
2019-05-22 18:30:00 West	Lane 2	Cars	90

2019-05-22 18:30:00 West	Lane 2	Light Goods Vehicle	1
2019-05-22 18:30:00 West	Lane 2	Single-Unit Trucks	0
2019-05-22 18:30:00 West	Lane 2	Articulated Trucks	0
2019-05-22 18:30:00 West	Lane 2	Buses	1
2019-05-22 18:30:00 West	Lane 2	Bicycles on Road	0
2019-05-22 18:30:00 East	Lane 1	Motorcycles	1
2019-05-22 18:30:00 East	Lane 1	Cars	86
2019-05-22 18:30:00 East	Lane 1	Light Goods Vehicle	6
2019-05-22 18:30:00 East	Lane 1	Single-Unit Trucks	1
2019-05-22 18:30:00 East	Lane 1	Articulated Trucks	0
2019-05-22 18:30:00 East	Lane 1	Buses	5
2019-05-22 18:30:00 East	Lane 1	Bicycles on Road	3
2019-05-22 18:30:00 East	Lane 2	Motorcycles	1
2019-05-22 18:30:00 East	Lane 2	Cars	81
2019-05-22 18:30:00 East	Lane 2	Light Goods Vehicle	2
2019-05-22 18:30:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 18:30:00 East	Lane 2	Articulated Trucks	0
2019-05-22 18:30:00 East	Lane 2	Buses	1
2019-05-22 18:30:00 East	Lane 2	Bicycles on Road	0
2019-05-22 18:45:00 West	Lane 1	Motorcycles	2
2019-05-22 18:45:00 West	Lane 1	Cars	89
2019-05-22 18:45:00 West	Lane 1	Light Goods Vehicle	3
2019-05-22 18:45:00 West	Lane 1	Single-Unit Trucks	0
2019-05-22 18:45:00 West	Lane 1	Articulated Trucks	0
2019-05-22 18:45:00 West	Lane 1	Buses	3
2019-05-22 18:45:00 West	Lane 1	Bicycles on Road	3
2019-05-22 18:45:00 West	Lane 2	Motorcycles	2
2019-05-22 18:45:00 West	Lane 2	Cars	72
2019-05-22 18:45:00 West	Lane 2	Light Goods Vehicle	4
2019-05-22 18:45:00 West	Lane 2	Single-Unit Trucks	0
2019-05-22 18:45:00 West	Lane 2	Articulated Trucks	0
2019-05-22 18:45:00 West	Lane 2	Buses	0
2019-05-22 18:45:00 West	Lane 2	Bicycles on Road	0
2019-05-22 18:45:00 East	Lane 1	Motorcycles	1
2019-05-22 18:45:00 East	Lane 1	Cars	88
2019-05-22 18:45:00 East	Lane 1	Light Goods Vehicle	3
2019-05-22 18:45:00 East	Lane 1	Single-Unit Trucks	0
2019-05-22 18:45:00 East	Lane 1	Articulated Trucks	0
2019-05-22 18:45:00 East	Lane 1	Buses	2
2019-05-22 18:45:00 East	Lane 1	Bicycles on Road	4
2019-05-22 18:45:00 East	Lane 2	Motorcycles	0
2019-05-22 18:45:00 East	Lane 2	Cars	56
2019-05-22 18:45:00 East	Lane 2	Light Goods Vehicle	4
2019-05-22 18:45:00 East	Lane 2	Single-Unit Trucks	0
2019-05-22 18:45:00 East	Lane 2	Articulated Trucks	0
2019-05-22 18:45:00 East	Lane 2	Buses	0
2019-05-22 18:45:00 East	Lane 2	Bicycles on Road	0

Sum of Volume	Direction		Channel		East Total	West		West Total	Grand Total
	East		West						
	Lane 1	Lane 2	Lane 1	Lane 2					
5/22/2019 6:00	35	17	52	52	47	99	151		
5/22/2019 6:15	46	32	78	45	40	85	163		
5/22/2019 6:30	53	56	109	78	56	134	243		
5/22/2019 6:45	56	41	97	62	64	126	223		
5/22/2019 7:00	64	55	119	103	91	194	313		
5/22/2019 7:15	71	79	150	100	66	166	316		
5/22/2019 7:30	100	89	189	121	78	199	388		
5/22/2019 7:45	103	112	215	117	81	198	413		
5/22/2019 8:00	109	145	254	122	92	214	468		
5/22/2019 8:15	134	142	276	105	90	195	471		
5/22/2019 8:30	115	130	245	118	101	219	464		
5/22/2019 8:45	118	153	271	132	80	212	483		
5/22/2019 9:00	112	122	234	102	66	168	402		
5/22/2019 9:15	96	125	221	96	81	177	398		
5/22/2019 9:30	91	80	171	115	103	218	389		
5/22/2019 9:45	122	104	226	92	94	186	412		
5/22/2019 10:00	88	87	175	101	95	196	371		
5/22/2019 10:15	88	82	170	99	75	174	344		
5/22/2019 10:30	77	53	130	103	62	165	295		
5/22/2019 10:45	80	84	164	100	98	198	362		
5/22/2019 11:00	92	64	156	90	79	169	325		
5/22/2019 11:15	82	72	154	91	97	188	342		
5/22/2019 11:30	70	77	147	108	92	200	347		
5/22/2019 11:45	86	93	179	105	105	210	389		
5/22/2019 12:00	88	68	156	108	96	204	360		
5/22/2019 12:15	90	68	158	106	92	198	356		
5/22/2019 12:30	93	84	177	119	107	226	403		
5/22/2019 12:45	99	87	186	109	86	195	381		
5/22/2019 13:00	92	80	172	114	77	191	363		
5/22/2019 13:15	91	84	175	125	88	213	388		
5/22/2019 13:30	101	72	173	114	91	205	378		
5/22/2019 13:45	96	77	173	103	84	187	360		
5/22/2019 14:00	111	68	179	91	114	205	384		
5/22/2019 14:15	125	65	190	114	86	200	390		
5/22/2019 14:30	117	80	197	125	109	234	431		
5/22/2019 14:45	127	85	212	120	109	229	441		
5/22/2019 15:00	150	88	238	162	119	281	519		
5/22/2019 15:15	186	90	276	148	128	276	552		
5/22/2019 15:30	213	116	329	147	94	241	570		
5/22/2019 15:45	215	115	330	173	119	292	622		
5/22/2019 16:00	223	109	332	164	141	305	637		
5/22/2019 16:15	202	115	317	176	152	328	645		
5/22/2019 16:30	198	116	314	157	131	288	602		
5/22/2019 16:45	186	118	304	162	119	281	585		

5/22/2019 17:00	188	114	302	172	129	301	603
5/22/2019 17:15	195	95	290	168	127	295	585
5/22/2019 17:30	164	119	283	150	120	270	553
5/22/2019 17:45	146	86	232	165	115	280	512
5/22/2019 18:00	127	89	216	144	105	249	465
5/22/2019 18:15	109	83	192	131	103	234	426
5/22/2019 18:30	102	85	187	107	92	199	386
5/22/2019 18:45	98	60	158	100	78	178	336
Grand Total	6020	4610	10630	6131	4944	11075	21705

APPENDIX G

Synchro Analysis

Existing AM
1: North River & Montreal



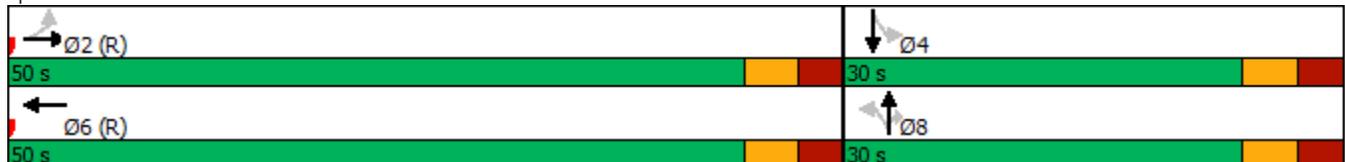
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	402	585	234	10	30	17	59
Future Volume (vph)	3	402	585	234	10	30	17	59
Lane Group Flow (vph)	0	825	630	246	11	32	0	96
Turn Type	Perm	NA	NA	Perm	NA	Perm	Perm	NA
Protected Phases		2	6		8			4
Permitted Phases	2			8		8	4	
Detector Phase	2	2	6	8	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2	30.2
Total Split (s)	50.0	50.0	50.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		-2.0	-2.0	-2.2	-2.2	-2.2		-2.2
Total Lost Time (s)		4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)		49.5	49.5	22.5	22.5	22.5		22.5
Actuated g/C Ratio		0.62	0.62	0.28	0.28	0.28		0.28
v/c Ratio		0.46	0.30	0.69	0.02	0.07		0.20
Control Delay		10.2	6.0	35.1	17.5	5.1		17.9
Queue Delay		0.0	0.3	0.0	0.0	0.0		0.0
Total Delay		10.2	6.3	35.1	17.5	5.1		17.9
LOS		B	A	D	B	A		B
Approach Delay		10.2	6.3		31.1			17.9
Approach LOS		B	A		C			B
Queue Length 50th (m)		31.4	9.7	33.1	1.2	0.0		9.5
Queue Length 95th (m)		56.9	16.7	49.5	4.1	4.2		17.6
Internal Link Dist (m)		105.3	52.9		53.3			56.2
Turn Bay Length (m)				35.0		45.0		
Base Capacity (vph)		1845	2128	427	598	512		564
Starvation Cap Reductn		0	877	0	0	0		0
Spillback Cap Reductn		0	0	0	0	0		0
Storage Cap Reductn		0	0	0	0	0		0
Reduced v/c Ratio		0.45	0.50	0.58	0.02	0.06		0.17

Intersection Summary

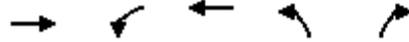
Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 12.5
 Intersection Capacity Utilization 62.1%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 1: North River & Montreal



Existing AM
2: Montgomery & Montreal

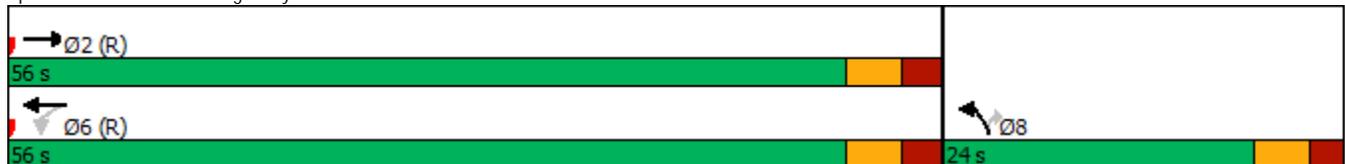


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↕↕		↕	↕	↕
Traffic Volume (vph)	431	53	689	19	38
Future Volume (vph)	431	53	689	19	38
Lane Group Flow (vph)	547	0	781	20	40
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	8	
Permitted Phases		6			8
Detector Phase	2	6	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	15.9	15.9	19.5	19.5
Total Split (s)	56.0	56.0	56.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	-4.0		-1.9	-1.5	-1.5
Total Lost Time (s)	1.9		4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	69.6		68.3	11.5	11.5
Actuated g/C Ratio	0.87		0.85	0.14	0.14
v/c Ratio	0.19		0.55	0.08	0.16
Control Delay	0.5		5.2	30.7	12.1
Queue Delay	0.1		0.0	0.0	0.0
Total Delay	0.6		5.2	30.7	12.1
LOS	A		A	C	B
Approach Delay	0.6		5.2	18.3	
Approach LOS	A		A	B	
Queue Length 50th (m)	1.7		42.0	2.7	0.0
Queue Length 95th (m)	1.6		68.2	8.5	8.1
Internal Link Dist (m)	52.9		131.4	77.9	
Turn Bay Length (m)					
Base Capacity (vph)	2858		1419	423	409
Starvation Cap Reductn	1168		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.32		0.55	0.05	0.10

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 3.9
 Intersection Capacity Utilization 88.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service E

Splits and Phases: 2: Montgomery & Montreal



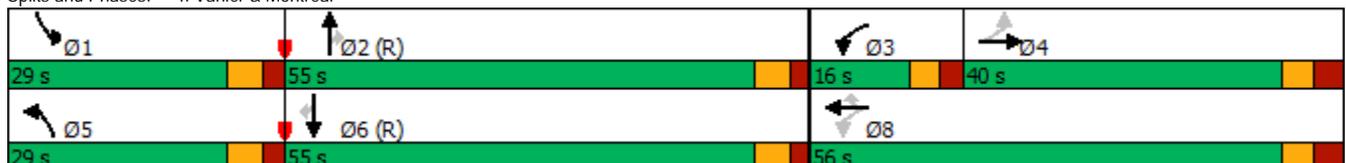
Existing AM
4: Vanier & Montreal

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	39	316	165	484	194	183	857	166	213	1096	140
Future Volume (vph)	39	316	165	484	194	183	857	166	213	1096	140
Lane Group Flow (vph)	41	491	174	509	204	193	902	175	224	1154	147
Turn Type	Perm	NA	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4	3	8		5	2		1	6	
Permitted Phases	4		8		8			2			6
Detector Phase	4	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	39.6	39.6	10.7	39.6	39.6	11.1	28.9	28.9	11.1	28.9	28.9
Total Split (s)	40.0	40.0	16.0	56.0	56.0	29.0	55.0	55.0	29.0	55.0	55.0
Total Split (%)	28.6%	28.6%	11.4%	40.0%	40.0%	20.7%	39.3%	39.3%	20.7%	39.3%	39.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.3	3.3	2.4	3.3	3.3	2.4	2.2	2.2	2.4	2.2	2.2
Lost Time Adjust (s)	-2.6	-2.6	-1.7	-2.6	-2.6	-2.1	-1.9	-1.9	-2.1	-1.9	-1.9
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	30.6	30.6	48.9	48.9	48.9	21.9	55.6	55.6	23.5	57.2	57.2
Actuated g/C Ratio	0.22	0.22	0.35	0.35	0.35	0.16	0.40	0.40	0.17	0.41	0.41
v/c Ratio	0.41	0.67	0.66	0.82	0.39	0.73	0.47	0.26	0.79	0.58	0.23
Control Delay	57.9	48.3	45.2	52.6	23.2	81.0	33.8	10.5	75.4	35.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	48.3	45.2	52.6	23.2	81.0	33.8	10.5	75.4	35.1	5.8
LOS	E	D	D	D	C	F	C	B	E	D	A
Approach Delay		49.0		44.4			37.8			38.2	
Approach LOS		D		D			D			D	
Queue Length 50th (m)	9.4	56.0	31.8	116.9	24.8	56.7	54.1	10.3	58.9	100.0	0.6
Queue Length 95th (m)	21.6	74.1	#53.3	167.4	47.3	82.1	57.0	m21.2	#93.4	113.0	14.7
Internal Link Dist (m)		90.5		113.1			139.9			106.8	
Turn Bay Length (m)	35.0		40.0		10.0	95.0		80.0	90.0		70.0
Base Capacity (vph)	117	852	265	678	570	303	1988	685	305	2022	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.58	0.66	0.75	0.36	0.64	0.45	0.26	0.73	0.57	0.23

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 102 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 40.8
 Intersection LOS: D
 Intersection Capacity Utilization 82.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Vanier & Montreal



Existing AM
5: North River & McArthur



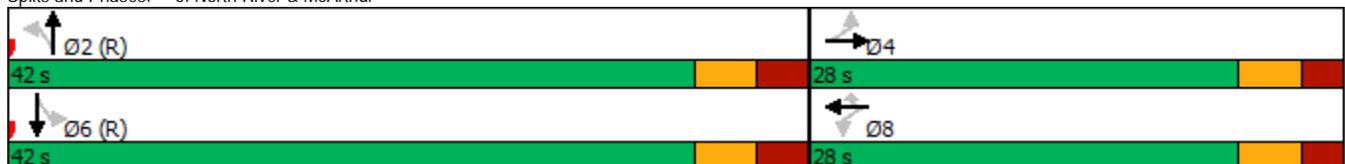
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	1	6	8	9	165	3	125	332	102
Future Volume (vph)	1	6	8	9	165	3	125	332	102
Lane Group Flow (vph)	0	10	0	17	174	0	166	0	460
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.6	25.6	25.6	25.6	25.6	31.1	31.1	31.1	31.1
Total Split (s)	28.0	28.0	28.0	28.0	28.0	42.0	42.0	42.0	42.0
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.8
Lost Time Adjust (s)		-1.6		-1.6	-1.6		-2.1		-2.1
Total Lost Time (s)		4.0		4.0	4.0		4.0		4.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		13.6		13.6	13.6		48.4		48.4
Actuated g/C Ratio		0.19		0.19	0.19		0.69		0.69
v/c Ratio		0.03		0.05	0.42		0.14		0.59
Control Delay		17.8		22.4	13.3		4.2		11.0
Queue Delay		0.0		0.0	0.0		0.0		0.0
Total Delay		17.8		22.4	13.3		4.2		11.0
LOS		B		C	B		A		B
Approach Delay		17.8		14.1			4.2		11.0
Approach LOS		B		B			A		B
Queue Length 50th (m)		0.8		2.1	9.5		4.4		22.3
Queue Length 95th (m)		3.6		m4.7	m33.6		15.3		74.8
Internal Link Dist (m)		19.4		126.4			86.5		58.5
Turn Bay Length (m)					100.0				
Base Capacity (vph)		571		551	598		1175		776
Starvation Cap Reductn		0		0	0		0		0
Spillback Cap Reductn		0		0	0		0		0
Storage Cap Reductn		0		0	0		0		0
Reduced v/c Ratio		0.02		0.03	0.29		0.14		0.59

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 10.4
 Intersection Capacity Utilization 69.2%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 5: North River & McArthur



Existing AM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	371	258	79	10	16
Future Vol, veh/h	10	371	258	79	10	16
Conflicting Peds, #/hr	91	0	0	91	1	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	391	272	83	11	17
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	446	0	-	0	819	416
Stage 1	-	-	-	-	405	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1114	-	-	-	345	637
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	667	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1028	-	-	-	290	582
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	616	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.2	0	14.2			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1028	-	-	-	420	
HCM Lane V/C Ratio	0.01	-	-	-	0.065	
HCM Control Delay (s)	8.5	0	-	-	14.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Existing AM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	377	337	0	4	4
Future Vol, veh/h	0	377	337	0	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	397	355	0	4	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	355	0	-	0	752	355
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1204	-	-	-	378	689
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1204	-	-	-	378	689
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	679	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1204	-	-	-	488	
HCM Lane V/C Ratio	-	-	-	-	0.017	
HCM Control Delay (s)	0	-	-	-	12.5	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Existing AM
9: North River & Selkirk

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	27	34	235	1	0	397
Future Vol, veh/h	27	34	235	1	0	397
Conflicting Peds, #/hr	3	0	0	90	90	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	36	247	1	0	418
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	550	338	0	0	-	-
Stage 1	338	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	480	703	-	-	0	-
Stage 1	722	-	-	-	0	-
Stage 2	804	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	442	649	-	-	-	-
Mov Cap-2 Maneuver	442	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.6	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT		
Capacity (veh/h)	-	-	538	-		
HCM Lane V/C Ratio	-	-	0.119	-		
HCM Control Delay (s)	-	-	12.6	-		
HCM Lane LOS	-	-	B	-		
HCM 95th %tile Q(veh)	-	-	0.4	-		

Existing AM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	15	1	1	56	132	9
Future Vol, veh/h	15	1	1	56	132	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	1	1	59	139	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	205	144	148	0	0	
Stage 1	144	-	-	-	-	
Stage 2	61	-	-	-	-	
Critical Hdwy	6.42	6.22	4.12	-	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	
Follow-up Hdwy	3.518	3.318	2.218	-	-	
Pot Cap-1 Maneuver	783	903	1434	-	-	
Stage 1	883	-	-	-	-	
Stage 2	962	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	782	903	1434	-	-	
Mov Cap-2 Maneuver	782	-	-	-	-	
Stage 1	882	-	-	-	-	
Stage 2	962	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	9.7	0.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1434	-	789	-	-	
HCM Lane V/C Ratio	0.001	-	0.021	-	-	
HCM Control Delay (s)	7.5	0	9.7	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Existing AM
14: North River & Site

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	4	8	258	13	9	388
Future Vol, veh/h	4	8	258	13	9	388
Conflicting Peds, #/hr	2	8	0	46	46	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	8	272	14	9	408
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	549	333	0	0	332	0
Stage 1	325	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	481	708	-	-	1226	-
Stage 1	731	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	456	676	-	-	1178	-
Mov Cap-2 Maneuver	456	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.3	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	582	1178	-	
HCM Lane V/C Ratio	-	-	0.022	0.008	-	
HCM Control Delay (s)	-	-	11.3	8.1	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Existing PM
1: North River & Montreal



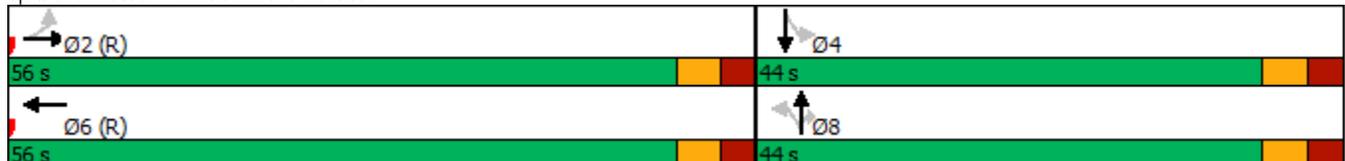
Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	583	620	356	17	31	21	65
Future Volume (vph)	3	583	620	356	17	31	21	65
Lane Group Flow (vph)	0	1126	657	375	18	33	0	112
Turn Type	Perm	NA	NA	Perm	NA	Perm	Perm	NA
Protected Phases		2	6		8			4
Permitted Phases	2			8		8	4	
Detector Phase	2	2	6	8	8	8	4	4
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2	30.2
Total Split (s)	56.0	56.0	56.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	56.0%	56.0%	56.0%	44.0%	44.0%	44.0%	44.0%	44.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.0	6.0	6.2	6.2	6.2		6.2
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)		54.5	54.5	33.3	33.3	33.3		33.3
Actuated g/C Ratio		0.54	0.54	0.33	0.33	0.33		0.33
v/c Ratio		0.71	0.36	0.89	0.03	0.07		0.20
Control Delay		21.0	18.4	56.1	20.3	7.3		20.3
Queue Delay		0.1	0.8	0.0	0.0	0.0		0.0
Total Delay		21.1	19.2	56.1	20.3	7.3		20.3
LOS		C	B	E	C	A		C
Approach Delay		21.1	19.2		50.8			20.3
Approach LOS		C	B		D			C
Queue Length 50th (m)		85.0	43.1	66.0	2.3	0.0		12.9
Queue Length 95th (m)		116.3	63.2	#109.9	6.6	5.9		24.1
Internal Link Dist (m)		105.3	52.9		53.3			56.2
Turn Bay Length (m)				35.0		45.0		
Base Capacity (vph)		1591	1844	475	674	550		622
Starvation Cap Reductn		0	828	0	0	0		0
Spillback Cap Reductn		34	0	0	0	30		34
Storage Cap Reductn		0	0	0	0	0		0
Reduced v/c Ratio		0.72	0.65	0.79	0.03	0.06		0.19

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 26.0
 Intersection Capacity Utilization 80.1%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 1: North River & Montreal



Existing PM
2: Montgomery & Montreal



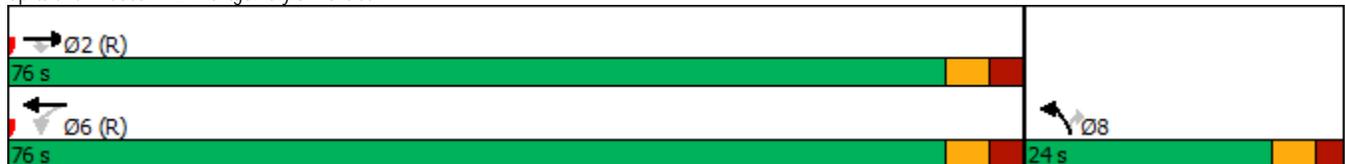
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	↑
Traffic Volume (vph)	552	97	56	580	108	66
Future Volume (vph)	552	97	56	580	108	66
Lane Group Flow (vph)	581	102	0	670	114	69
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	39.9	15.9	15.9	19.5	19.5
Total Split (s)	76.0	76.0	76.0	76.0	24.0	24.0
Total Split (%)	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9		5.9	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	76.1	76.1		76.1	12.5	12.5
Actuated g/C Ratio	0.76	0.76		0.76	0.12	0.12
v/c Ratio	0.43	0.09		0.31	0.54	0.29
Control Delay	8.2	3.4		4.4	50.0	12.7
Queue Delay	4.4	0.6		0.0	0.0	0.0
Total Delay	12.6	4.0		4.4	50.0	12.7
LOS	B	A		A	D	B
Approach Delay	11.3			4.4	35.9	
Approach LOS	B			A	D	
Queue Length 50th (m)	42.7	0.0		16.8	21.2	0.0
Queue Length 95th (m)	65.1	m6.6		28.8	36.4	11.5
Internal Link Dist (m)	52.9			131.4	77.9	
Turn Bay Length (m)						
Base Capacity (vph)	1356	1103		2191	313	318
Starvation Cap Reductn	683	765		0	0	0
Spillback Cap Reductn	0	0		233	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.86	0.30		0.34	0.36	0.22

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 11.3
 Intersection Capacity Utilization 73.2%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 2: Montgomery & Montreal



Existing PM
5: North River & McArthur

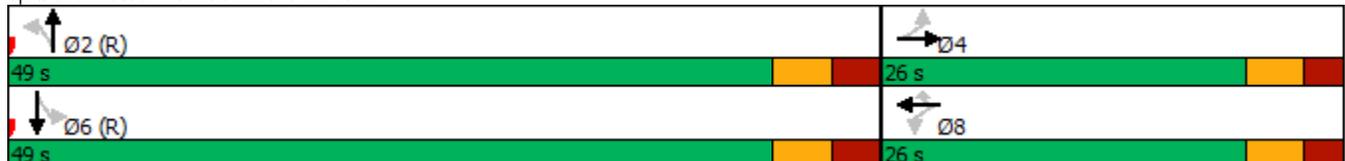


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	25	24	11	217	2	148	409	139
Future Volume (vph)	4	25	24	11	217	2	148	409	139
Lane Group Flow (vph)	0	36	0	37	228	0	196	0	578
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.6	25.6	25.6	25.6	25.6	31.1	31.1	31.1	31.1
Total Split (s)	26.0	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.8
Lost Time Adjust (s)		0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)		5.6		5.6	5.6		6.1		6.1
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		14.0		14.0	14.0		49.3		49.3
Actuated g/C Ratio		0.19		0.19	0.19		0.66		0.66
v/c Ratio		0.11		0.14	0.52		0.18		0.81
Control Delay		20.6		24.4	8.0		5.7		23.7
Queue Delay		0.0		0.0	0.0		0.0		0.0
Total Delay		20.6		24.4	8.0		5.7		23.7
LOS		C		C	A		A		C
Approach Delay		20.6		10.3			5.7		23.7
Approach LOS		C		B			A		C
Queue Length 50th (m)		3.8		4.7	0.0		6.2		41.0
Queue Length 95th (m)		9.6		10.5	15.1		19.3		#136.1
Internal Link Dist (m)		19.4		126.4			86.5		58.5
Turn Bay Length (m)					100.0				
Base Capacity (vph)		457		383	536		1113		713
Starvation Cap Reductn		0		0	0		0		0
Spillback Cap Reductn		0		0	0		0		0
Storage Cap Reductn		0		0	0		0		0
Reduced v/c Ratio		0.08		0.10	0.43		0.18		0.81

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 17.0
 Intersection LOS: B
 Intersection Capacity Utilization 81.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: North River & McArthur



Existing PM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	474	292	92	26	4
Future Vol, veh/h	7	474	292	92	26	4
Conflicting Peds, #/hr	76	0	0	76	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	499	307	97	27	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	480	0	-	0	945	441
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1082	-	-	-	291	616
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1012	-	-	-	252	572
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	563	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.1	0	20			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1012	-	-	-	272	
HCM Lane V/C Ratio	0.007	-	-	-	0.116	
HCM Control Delay (s)	8.6	0	-	-	20	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Existing PM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	496	384	0	8	8
Future Vol, veh/h	0	496	384	0	8	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	522	404	0	8	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	404	0	-	0	926	404
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1155	-	-	-	298	647
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	595	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1155	-	-	-	298	647
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	595	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		14.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1155	-	-	-	408	
HCM Lane V/C Ratio	-	-	-	-	0.041	
HCM Control Delay (s)	0	-	-	-	14.2	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Existing PM
9: North River & Selkirk

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔		↑			↑↑
Traffic Vol, veh/h	115	49	425	0	0	454
Future Vol, veh/h	115	49	425	0	0	454
Conflicting Peds, #/hr	2	2	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	52	447	0	0	478
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	688	449	0	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	396	609	-	0	0	-
Stage 1	643	-	-	0	0	-
Stage 2	777	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	395	608	-	-	-	-
Mov Cap-2 Maneuver	395	-	-	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.3	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	WBLn1	SBT			
Capacity (veh/h)	-	441	-			
HCM Lane V/C Ratio	-	0.391	-			
HCM Control Delay (s)	-	18.3	-			
HCM Lane LOS	-	C	-			
HCM 95th %tile Q(veh)	-	1.8	-			

Existing PM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	40	3	4	171	153	54
Future Vol, veh/h	40	3	4	171	153	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	3	4	180	161	57
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	378	190	218	0	0	
Stage 1	190	-	-	-	-	
Stage 2	188	-	-	-	-	
Critical Hdwy	6.42	6.22	4.12	-	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	
Follow-up Hdwy	3.518	3.318	2.218	-	-	
Pot Cap-1 Maneuver	624	852	1352	-	-	
Stage 1	842	-	-	-	-	
Stage 2	844	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	622	852	1352	-	-	
Mov Cap-2 Maneuver	622	-	-	-	-	
Stage 1	839	-	-	-	-	
Stage 2	844	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	11.1	0.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1352	-	634	-	-	
HCM Lane V/C Ratio	0.003	-	0.071	-	-	
HCM Control Delay (s)	7.7	0	11.1	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Existing PM
14: North River & Site

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	8	22	390	40	27	451
Future Vol, veh/h	8	22	390	40	27	451
Conflicting Peds, #/hr	14	13	0	55	55	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	23	411	42	28	475
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	795	500	0	0	508	0
Stage 1	487	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	340	570	-	-	1055	-
Stage 1	617	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	308	537	-	-	1006	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.6	0		0.6		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	448	1006	-	
HCM Lane V/C Ratio	-	-	0.07	0.028	-	
HCM Control Delay (s)	-	-	13.6	8.7	0.1	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Projected 2022 AM
1: North River & Montreal



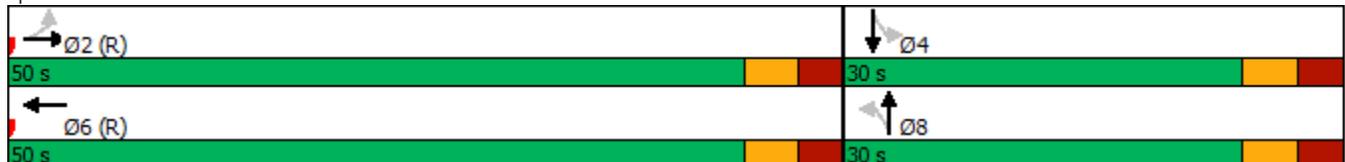
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	414	610	262	10	17	59
Future Volume (vph)	3	414	610	262	10	17	59
Lane Group Flow (vph)	0	842	656	276	43	0	96
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		2	6		8		4
Permitted Phases	2			8		4	
Detector Phase	2	2	6	8	8	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2
Total Split (s)	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.0	6.0	6.2	6.2		6.2
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		45.3	45.3	22.5	22.5		22.5
Actuated g/C Ratio		0.57	0.57	0.28	0.28		0.28
v/c Ratio		0.52	0.34	0.71	0.09		0.20
Control Delay		13.1	7.1	35.8	9.3		18.2
Queue Delay		0.0	0.4	0.0	0.0		0.0
Total Delay		13.1	7.5	35.8	9.3		18.2
LOS		B	A	D	A		B
Approach Delay		13.1	7.5		32.2		18.2
Approach LOS		B	A		C		B
Queue Length 50th (m)		39.4	12.4	36.7	1.2		9.3
Queue Length 95th (m)		61.8	18.0	57.8	7.4		18.7
Internal Link Dist (m)		105.3	52.9		6.0		56.2
Turn Bay Length (m)				35.0			
Base Capacity (vph)		1680	1969	432	502		525
Starvation Cap Reductn		0	791	0	0		0
Spillback Cap Reductn		0	0	0	0		0
Storage Cap Reductn		0	0	0	0		0
Reduced v/c Ratio		0.50	0.56	0.64	0.09		0.18

Intersection Summary

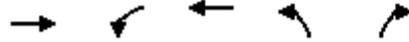
Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 14.6
 Intersection Capacity Utilization 60.9%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 1: North River & Montreal



Projected 2022 AM
2: Montgomery & Montreal

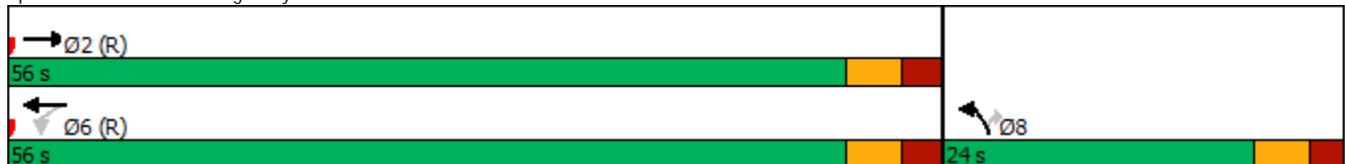


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↕↕		↕	↕	↕
Traffic Volume (vph)	441	66	689	44	86
Future Volume (vph)	441	66	689	44	86
Lane Group Flow (vph)	559	0	794	46	91
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	8	
Permitted Phases		6			8
Detector Phase	2	6	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	15.9	15.9	19.5	19.5
Total Split (s)	56.0	56.0	56.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.9		5.9	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	62.8		62.8	10.0	10.0
Actuated g/C Ratio	0.78		0.78	0.12	0.12
v/c Ratio	0.22		0.62	0.22	0.34
Control Delay	1.0		7.8	34.3	11.5
Queue Delay	0.1		0.0	0.0	0.0
Total Delay	1.1		7.8	34.3	11.5
LOS	A		A	C	B
Approach Delay	1.1		7.8	19.2	
Approach LOS	A		A	B	
Queue Length 50th (m)	2.5		50.7	6.4	0.0
Queue Length 95th (m)	4.8		85.0	15.7	12.2
Internal Link Dist (m)	52.9		131.4	77.9	
Turn Bay Length (m)					
Base Capacity (vph)	2588		1274	391	420
Starvation Cap Reductn	1011		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.35		0.62	0.12	0.22

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 6.4
 Intersection Capacity Utilization 93.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service F

Splits and Phases: 2: Montgomery & Montreal



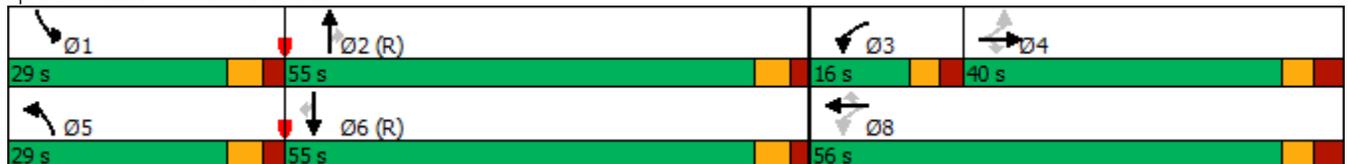
Projected 2022 AM
4: Vanier & Montreal

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	344	159	168	491	194	222	857	166	213	1099	142
Future Volume (vph)	50	344	159	168	491	194	222	857	166	213	1099	142
Lane Group Flow (vph)	53	362	167	177	517	204	234	902	175	224	1157	149
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	39.6	39.6	39.6	10.7	39.6	39.6	11.1	28.9	28.9	11.1	28.9	28.9
Total Split (s)	40.0	40.0	40.0	16.0	56.0	56.0	29.0	55.0	55.0	29.0	55.0	55.0
Total Split (%)	28.6%	28.6%	28.6%	11.4%	40.0%	40.0%	20.7%	39.3%	39.3%	20.7%	39.3%	39.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	2.4	3.3	3.3	2.4	2.2	2.2	2.4	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	5.7	6.6	6.6	6.1	5.9	5.9	6.1	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	31.4	31.4	31.4	51.0	50.1	50.1	21.8	49.9	49.9	21.3	49.4	49.4
Actuated g/C Ratio	0.22	0.22	0.22	0.36	0.36	0.36	0.16	0.36	0.36	0.15	0.35	0.35
v/c Ratio	0.44	0.91	0.37	0.76	0.81	0.38	0.89	0.52	0.29	0.87	0.67	0.27
Control Delay	58.7	79.3	8.5	54.2	51.7	23.3	97.2	37.5	12.0	88.1	41.4	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	79.3	8.5	54.2	51.7	23.3	97.2	37.5	12.0	88.1	41.4	9.4
LOS	E	E	A	D	D	C	F	D	B	F	D	A
Approach Delay		57.1			45.7			44.7				45.1
Approach LOS		E			D			D				D
Queue Length 50th (m)	12.5	96.5	0.0	32.8	122.1	25.3	68.6	54.7	12.0	60.6	105.7	5.1
Queue Length 95th (m)	27.1	#147.2	18.3	#67.0	#179.4	48.9	m#105.3	60.5	m21.2	#100.7	116.0	20.3
Internal Link Dist (m)		90.5			113.1			139.9			106.8	
Turn Bay Length (m)	35.0			40.0		10.0	95.0		80.0	90.0		70.0
Base Capacity (vph)	128	425	464	232	655	552	277	1796	613	277	1787	572
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.85	0.36	0.76	0.79	0.37	0.84	0.50	0.29	0.81	0.65	0.26

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 102 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 46.7
 Intersection LOS: D
 Intersection Capacity Utilization 92.2%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Vanier & Montreal



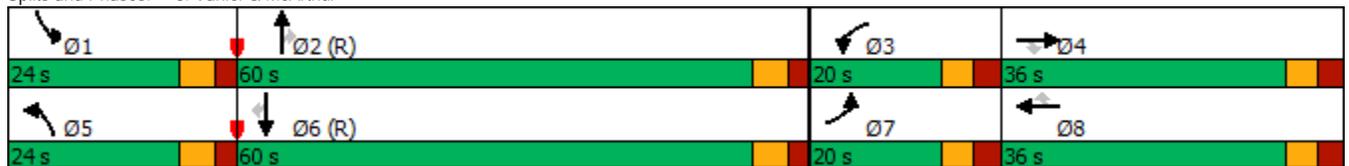
Projected 2022 AM
6: Vanier & McArthur

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	115	282	209	192	111	221	1076	225	162	1307	60
Future Volume (vph)	34	115	282	209	192	111	221	1076	225	162	1307	60
Lane Group Flow (vph)	36	121	297	220	202	117	233	1133	237	171	1376	63
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.2	36.2	36.2	11.2	36.2	36.2	11.1	36.1	36.1	11.1	36.1	36.1
Total Split (s)	20.0	36.0	36.0	20.0	36.0	36.0	24.0	60.0	60.0	24.0	60.0	60.0
Total Split (%)	14.3%	25.7%	25.7%	14.3%	25.7%	25.7%	17.1%	42.9%	42.9%	17.1%	42.9%	42.9%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min						
Act Effct Green (s)	8.4	22.4	22.4	13.0	29.3	29.3	22.5	63.2	63.2	16.8	57.5	57.5
Actuated g/C Ratio	0.06	0.16	0.16	0.09	0.21	0.21	0.16	0.45	0.45	0.12	0.41	0.41
v/c Ratio	0.35	0.42	0.69	0.72	0.54	0.31	0.86	0.74	0.34	0.84	0.99	0.10
Control Delay	72.5	55.2	25.5	75.6	54.7	9.0	85.2	37.6	13.5	97.4	49.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.5	55.2	25.5	75.6	54.7	9.0	85.2	37.6	13.5	97.4	49.8	1.1
LOS	E	E	C	E	D	A	F	D	B	F	D	A
Approach Delay		37.2			53.3			40.9			52.9	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	9.4	32.6	24.8	30.8	47.5	0.0	~71.6	151.5	18.4	49.9	~117.5	0.3
Queue Length 95th (m)	m16.6	45.3	52.9	44.7	74.2	14.9	#123.9	181.4	40.4	m#82.8	#251.5	m0.5
Internal Link Dist (m)		119.1			163.5			123.8			129.2	
Turn Bay Length (m)	40.0		80.0	100.0		75.0	55.0		55.0	85.0		110.0
Base Capacity (vph)	167	379	494	324	409	402	272	1529	699	216	1393	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.32	0.60	0.68	0.49	0.29	0.86	0.74	0.34	0.79	0.99	0.10

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 100 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 46.7
 Intersection LOS: D
 Intersection Capacity Utilization 96.2%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Vanier & McArthur



Projected 2022 AM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	374	259	80	10	16
Future Vol, veh/h	10	374	259	80	10	16
Conflicting Peds, #/hr	91	0	0	91	1	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	394	273	84	11	17
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	448	0	-	0	823	417
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	417	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1112	-	-	-	343	636
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	665	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1026	-	-	-	288	582
Mov Cap-2 Maneuver	-	-	-	-	288	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	614	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.2	0	14.2			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1026	-	-	-	418	
HCM Lane V/C Ratio	0.01	-	-	-	0.065	
HCM Control Delay (s)	8.5	0	-	-	14.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Projected 2022 AM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	380	339	0	7	4
Future Vol, veh/h	0	380	339	0	7	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	400	357	0	7	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	357	0	-	0	757	357
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1202	-	-	-	375	687
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	677	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1202	-	-	-	375	687
Mov Cap-2 Maneuver	-	-	-	-	375	-
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	677	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1202	-	-	-	449	
HCM Lane V/C Ratio	-	-	-	-	0.026	
HCM Control Delay (s)	0	-	-	-	13.2	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Projected 2022 AM
9: North River & Selkirk

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	27	50	236	1	0	400
Future Vol, veh/h	27	50	236	1	0	400
Conflicting Peds, #/hr	3	0	0	90	90	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	53	248	1	0	421
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	553	339	0	0	-	-
Stage 1	339	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	478	702	-	-	0	-
Stage 1	721	-	-	-	0	-
Stage 2	802	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	440	649	-	-	-	-
Mov Cap-2 Maneuver	440	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.6	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT		
Capacity (veh/h)	-	-	556	-		
HCM Lane V/C Ratio	-	-	0.146	-		
HCM Control Delay (s)	-	-	12.6	-		
HCM Lane LOS	-	-	B	-		
HCM 95th %tile Q(veh)	-	-	0.5	-		

Projected 2022 AM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	56	3	1	56	132	23
Future Vol, veh/h	56	3	1	56	132	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	3	1	59	139	24
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	212	151	163	0	0	
Stage 1	151	-	-	-	-	
Stage 2	61	-	-	-	-	
Critical Hdwy	6.42	6.22	4.12	-	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	
Follow-up Hdwy	3.518	3.318	2.218	-	-	
Pot Cap-1 Maneuver	776	895	1416	-	-	
Stage 1	877	-	-	-	-	
Stage 2	962	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	775	895	1416	-	-	
Mov Cap-2 Maneuver	775	-	-	-	-	
Stage 1	876	-	-	-	-	
Stage 2	962	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	10	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1416	-	780	-	-	
HCM Lane V/C Ratio	0.001	-	0.08	-	-	
HCM Control Delay (s)	7.5	0	10	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Projected 2022 AM
14: North River & Site

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	7	20	258	14	13	388
Future Vol, veh/h	7	20	258	14	13	388
Conflicting Peds, #/hr	2	8	0	46	46	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	21	272	15	14	408
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	560	334	0	0	333	0
Stage 1	326	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	474	707	-	-	1225	-
Stage 1	731	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	448	675	-	-	1177	-
Mov Cap-2 Maneuver	448	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.3	0		0.4		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	597	1177	-	
HCM Lane V/C Ratio	-	-	0.048	0.012	-	
HCM Control Delay (s)	-	-	11.3	8.1	0.1	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Projected 2022 PM
1: North River & Montreal



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	615	633	371	17	21	65
Future Volume (vph)	3	615	633	371	17	21	65
Lane Group Flow (vph)	0	1170	670	391	51	0	112
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		2	6		8		4
Permitted Phases	2			8		4	
Detector Phase	2	2	6	8	8	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2
Total Split (s)	56.0	56.0	56.0	44.0	44.0	44.0	44.0
Total Split (%)	56.0%	56.0%	56.0%	44.0%	44.0%	44.0%	44.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.0	6.0	6.2	6.2		6.2
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		53.6	53.6	34.2	34.2		34.2
Actuated g/C Ratio		0.54	0.54	0.34	0.34		0.34
v/c Ratio		0.76	0.37	0.91	0.09		0.20
Control Delay		23.3	18.5	57.3	10.5		20.0
Queue Delay		0.9	0.9	0.0	0.0		0.0
Total Delay		24.2	19.4	57.3	10.6		20.0
LOS		C	B	E	B		C
Approach Delay		24.2	19.4		51.9		20.0
Approach LOS		C	B		D		C
Queue Length 50th (m)		94.7	46.1	68.3	2.2		12.6
Queue Length 95th (m)		126.0	66.0	#117.1	9.5		24.1
Internal Link Dist (m)		105.3	52.9		6.0		56.2
Turn Bay Length (m)				35.0			
Base Capacity (vph)		1536	1815	476	598		619
Starvation Cap Reductn		0	812	0	0		0
Spillback Cap Reductn		149	0	0	39		41
Storage Cap Reductn		0	0	0	0		0
Reduced v/c Ratio		0.84	0.67	0.82	0.09		0.19

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 27.8
 Intersection Capacity Utilization 77.1%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 1: North River & Montreal



Projected 2022 PM
2: Montgomery & Montreal



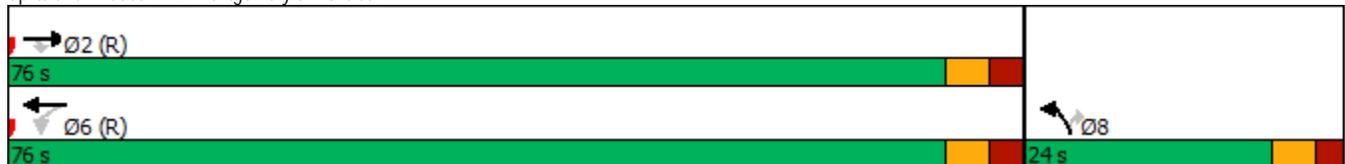
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	↑
Traffic Volume (vph)	579	102	91	579	123	93
Future Volume (vph)	579	102	91	579	123	93
Lane Group Flow (vph)	609	107	0	705	129	98
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	39.9	15.9	15.9	19.5	19.5
Total Split (s)	76.0	76.0	76.0	76.0	24.0	24.0
Total Split (%)	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9		5.9	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	75.3	75.3		75.3	13.3	13.3
Actuated g/C Ratio	0.75	0.75		0.75	0.13	0.13
v/c Ratio	0.45	0.10		0.36	0.57	0.36
Control Delay	9.3	3.8		5.1	50.5	11.6
Queue Delay	10.1	0.7		0.1	0.0	0.0
Total Delay	19.5	4.5		5.1	50.5	11.6
LOS	B	A		A	D	B
Approach Delay	17.2			5.1	33.7	
Approach LOS	B			A	C	
Queue Length 50th (m)	61.6	2.5		19.6	23.9	0.0
Queue Length 95th (m)	69.8	m5.6		33.5	40.0	13.3
Internal Link Dist (m)	52.9			131.4	77.9	
Turn Bay Length (m)						
Base Capacity (vph)	1343	1096		1982	313	342
Starvation Cap Reductn	700	760		0	0	0
Spillback Cap Reductn	0	0		299	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.95	0.32		0.42	0.41	0.29

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 14.3
 Intersection Capacity Utilization 75.8%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 2: Montgomery & Montreal



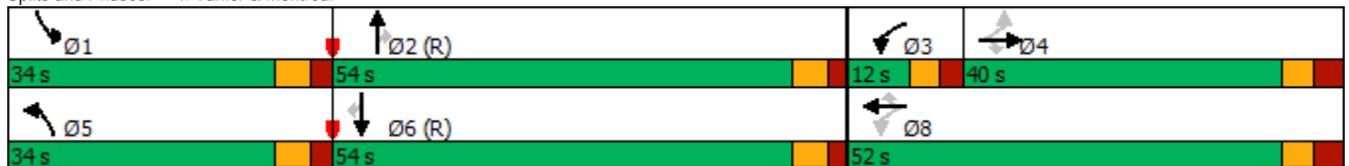
Projected 2022 PM
4: Vanier & Montreal

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	385	183	163	356	198	337	1011	210	142	1026	100
Future Volume (vph)	57	385	183	163	356	198	337	1011	210	142	1026	100
Lane Group Flow (vph)	60	405	193	172	375	208	355	1064	221	149	1080	105
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	39.6	39.6	39.6	10.7	39.6	39.6	11.1	28.9	28.9	11.1	28.9	28.9
Total Split (s)	40.0	40.0	40.0	12.0	52.0	52.0	34.0	54.0	54.0	34.0	54.0	54.0
Total Split (%)	28.6%	28.6%	28.6%	8.6%	37.1%	37.1%	24.3%	38.6%	38.6%	24.3%	38.6%	38.6%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	2.4	3.3	3.3	2.4	2.2	2.2	2.4	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	5.7	6.6	6.6	6.1	5.9	5.9	6.1	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	33.0	33.0	33.0	53.7	52.8	52.8	28.3	51.0	51.0	17.6	40.3	40.3
Actuated g/C Ratio	0.24	0.24	0.24	0.38	0.38	0.38	0.20	0.36	0.36	0.13	0.29	0.29
v/c Ratio	0.28	0.96	0.41	0.75	0.29	0.36	1.04	0.60	0.35	0.70	0.77	0.22
Control Delay	48.0	88.4	10.6	55.4	32.2	20.0	112.7	41.7	10.4	75.5	49.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	88.4	10.6	55.4	32.2	20.0	112.7	41.7	10.4	75.5	49.4	4.9
LOS	D	F	B	E	C	B	F	D	B	E	D	A
Approach Delay		61.9			34.1			52.9				48.8
Approach LOS		E			C			D				D
Queue Length 50th (m)	13.7	111.4	3.5	32.3	37.8	21.8	-109.7	65.2	15.7	40.1	100.5	0.0
Queue Length 95th (m)	27.5	#174.2	23.9	#90.6	55.4	46.7	m#124.7	m56.4	m13.0	60.6	107.9	9.6
Internal Link Dist (m)		90.5			113.1			139.9			106.8	
Turn Bay Length (m)	35.0			40.0		10.0	95.0		80.0	90.0		70.0
Base Capacity (vph)	213	425	470	228	1279	572	342	1774	635	337	1673	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.95	0.41	0.75	0.29	0.36	1.04	0.60	0.35	0.44	0.65	0.19

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 56 (40%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 49.7
 Intersection LOS: D
 Intersection Capacity Utilization 96.7%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Vanier & Montreal



Projected 2022 PM
5: North River & McArthur

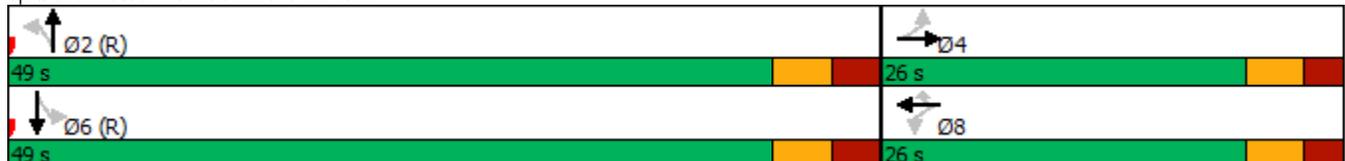


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	4	25	24	11	220	2	148	411	139
Future Volume (vph)	4	25	24	11	220	2	148	411	139
Lane Group Flow (vph)	0	36	0	37	232	0	196	0	580
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	25.6	25.6	25.6	25.6	25.6	31.1	31.1	31.1	31.1
Total Split (s)	26.0	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.8
Lost Time Adjust (s)		0.0		0.0	0.0		0.0		0.0
Total Lost Time (s)		5.6		5.6	5.6		6.1		6.1
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		14.0		14.0	14.0		49.3		49.3
Actuated g/C Ratio		0.19		0.19	0.19		0.66		0.66
v/c Ratio		0.11		0.14	0.52		0.18		0.81
Control Delay		20.6		24.4	8.1		5.7		23.9
Queue Delay		0.0		0.0	0.0		0.0		0.0
Total Delay		20.6		24.4	8.1		5.7		23.9
LOS		C		C	A		A		C
Approach Delay		20.6		10.3			5.7		23.9
Approach LOS		C		B			A		C
Queue Length 50th (m)		3.8		4.7	0.0		6.2		41.3
Queue Length 95th (m)		9.6		10.5	15.3		19.3		#136.7
Internal Link Dist (m)		19.4		126.4			86.5		58.5
Turn Bay Length (m)					100.0				
Base Capacity (vph)		457		383	539		1113		713
Starvation Cap Reductn		0		0	0		0		0
Spillback Cap Reductn		0		0	0		0		0
Storage Cap Reductn		0		0	0		0		0
Reduced v/c Ratio		0.08		0.10	0.43		0.18		0.81

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 17.1
 Intersection LOS: B
 Intersection Capacity Utilization 82.0%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: North River & McArthur



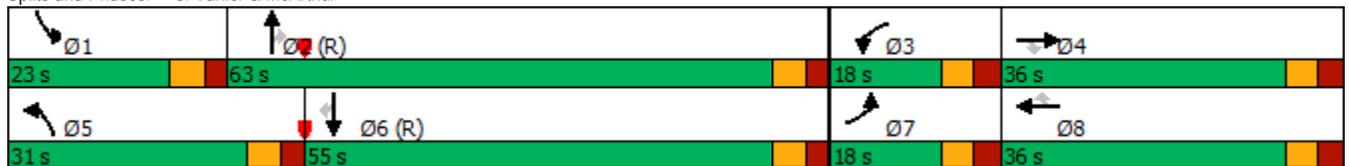
Projected 2022 PM
6: Vanier & McArthur

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	248	474	333	221	189	209	1283	251	175	1188	66
Future Volume (vph)	55	248	474	333	221	189	209	1283	251	175	1188	66
Lane Group Flow (vph)	58	261	499	351	233	199	220	1351	264	184	1251	69
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.2	36.2	36.2	11.2	36.2	36.2	11.1	36.1	36.1	11.1	36.1	36.1
Total Split (s)	18.0	36.0	36.0	18.0	36.0	36.0	31.0	63.0	63.0	23.0	55.0	55.0
Total Split (%)	12.9%	25.7%	25.7%	12.9%	25.7%	25.7%	22.1%	45.0%	45.0%	16.4%	39.3%	39.3%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.1	6.1	6.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	9.7	29.8	29.8	11.8	34.4	34.4	21.9	57.1	57.1	16.7	51.9	51.9
Actuated g/C Ratio	0.07	0.21	0.21	0.08	0.25	0.25	0.16	0.41	0.41	0.12	0.37	0.37
v/c Ratio	0.50	0.69	1.01	1.27	0.53	0.41	0.83	0.98	0.41	0.91	1.00	0.12
Control Delay	76.9	61.4	69.5	195.3	52.8	8.5	81.8	60.2	16.2	103.6	62.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	61.4	69.5	195.3	52.8	8.5	81.8	60.2	16.2	103.6	62.7	1.2
LOS	E	E	E	F	D	A	F	E	B	F	E	A
Approach Delay		67.4			105.4			56.5			64.9	
Approach LOS		E			F			E			E	
Queue Length 50th (m)	15.7	67.3	-80.5	-62.8	58.0	0.0	58.9	192.3	24.4	53.6	-112.1	0.0
Queue Length 95th (m)	30.4	97.8	#153.1	#94.0	87.1	20.6	#91.5	#242.7	47.8	m#94.8	#232.1	m1.3
Internal Link Dist (m)		119.1			163.5			123.8			129.2	
Turn Bay Length (m)	40.0		80.0	100.0		75.0	55.0		55.0	85.0		110.0
Base Capacity (vph)	142	379	493	277	438	491	301	1382	648	204	1255	573
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.69	1.01	1.27	0.53	0.41	0.73	0.98	0.41	0.90	1.00	0.12

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 54 (39%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.27
 Intersection Signal Delay: 68.6
 Intersection LOS: E
 Intersection Capacity Utilization 102.1%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Vanier & McArthur



Projected 2022 PM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	476	295	95	26	4
Future Vol, veh/h	7	476	295	95	26	4
Conflicting Peds, #/hr	76	0	0	76	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	501	311	100	27	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	487	0	-	0	952	446
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1076	-	-	-	288	612
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1007	-	-	-	250	568
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	562	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		20.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1007	-	-	-	270	
HCM Lane V/C Ratio	0.007	-	-	-	0.117	
HCM Control Delay (s)	8.6	0	-	-	20.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Projected 2022 PM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	498	389	0	10	8
Future Vol, veh/h	0	498	389	0	10	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	524	409	0	11	8
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	409	0	-	0	933	409
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	524	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1150	-	-	-	295	642
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	594	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1150	-	-	-	295	642
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	594	-
Approach	EB	WB	SB			
HCM Control Delay, s	0	0	14.8			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1150	-	-	-	388	
HCM Lane V/C Ratio	-	-	-	-	0.049	
HCM Control Delay (s)	0	-	-	-	14.8	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Projected 2022 PM
 9: North River & Selkirk

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T			T
Traffic Vol, veh/h	115	57	428	0	0	456
Future Vol, veh/h	115	57	428	0	0	456
Conflicting Peds, #/hr	2	2	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	60	451	0	0	480
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	693	453	0	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	393	606	-	0	0	-
Stage 1	641	-	-	0	0	-
Stage 2	776	-	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	392	605	-	-	-	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	641	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.6	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	WBLn1	SBT			
Capacity (veh/h)	-	444	-			
HCM Lane V/C Ratio	-	0.408	-			
HCM Control Delay (s)	-	18.6	-			
HCM Lane LOS	-	C	-			
HCM 95th %tile Q(veh)	-	1.9	-			

Projected 2022 PM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	66	2	3	171	153	92
Future Vol, veh/h	66	2	3	171	153	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	2	3	180	161	97
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	396	210	258	0	-	0
Stage 1	210	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	609	830	1307	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	607	830	1307	-	-	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	11.7	0.1	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1307	-	612	-	-	
HCM Lane V/C Ratio	0.002	-	0.117	-	-	
HCM Control Delay (s)	7.8	0	11.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

Projected 2022 PM
14: North River & Site

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	10	29	390	43	37	451
Future Vol, veh/h	10	29	390	43	37	451
Conflicting Peds, #/hr	14	13	0	55	55	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	31	411	45	39	475
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	819	502	0	0	511	0
Stage 1	489	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	329	568	-	-	1052	-
Stage 1	615	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	293	536	-	-	1003	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	14	0		0.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	442	1003	-	
HCM Lane V/C Ratio	-	-	0.093	0.039	-	
HCM Control Delay (s)	-	-	14	8.7	0.2	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

Projected 2025 AM
1: North River & Montreal

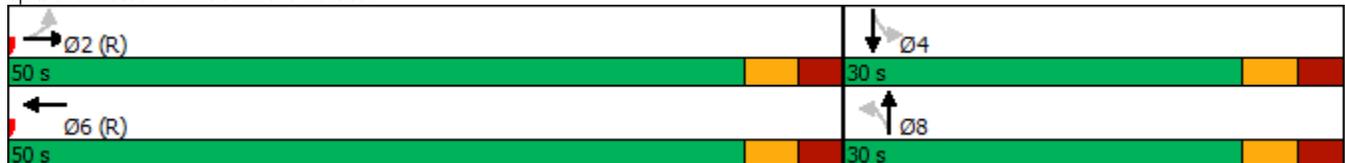


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	420	638	300	10	17	59
Future Volume (vph)	3	420	638	300	10	17	59
Lane Group Flow (vph)	0	860	686	316	43	0	96
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		2	6		8		4
Permitted Phases	2			8		4	
Detector Phase	2	2	6	8	8	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2
Total Split (s)	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.0	6.0	6.2	6.2		6.2
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		42.7	42.7	25.1	25.1		25.1
Actuated g/C Ratio		0.53	0.53	0.31	0.31		0.31
v/c Ratio		0.56	0.38	0.82	0.09		0.18
Control Delay		14.8	9.3	43.4	9.0		17.0
Queue Delay		0.0	0.6	0.0	0.0		0.0
Total Delay		14.8	9.9	43.4	9.0		17.0
LOS		B	A	D	A		B
Approach Delay		14.8	9.9		39.3		17.0
Approach LOS		B	A		D		B
Queue Length 50th (m)		45.5	21.0	42.0	1.1		8.7
Queue Length 95th (m)		62.2	26.2	#81.4	7.5		19.0
Internal Link Dist (m)		105.3	52.9		6.0		56.2
Turn Bay Length (m)				35.0			
Base Capacity (vph)		1626	1906	404	522		547
Starvation Cap Reductn		0	784	0	0		0
Spillback Cap Reductn		0	0	0	0		0
Storage Cap Reductn		0	0	0	0		0
Reduced v/c Ratio		0.53	0.61	0.78	0.08		0.18

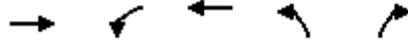
Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 17.6
 Intersection LOS: B
 Intersection Capacity Utilization 63.7%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: North River & Montreal



Projected 2025 AM
 2: Montgomery & Montreal

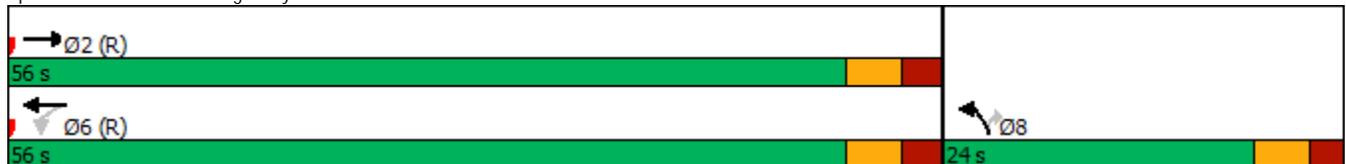


Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations	↕↕		↕	↕	↕
Traffic Volume (vph)	436	107	684	77	194
Future Volume (vph)	436	107	684	77	194
Lane Group Flow (vph)	565	0	833	81	204
Turn Type	NA	Perm	NA	Prot	Perm
Protected Phases	2		6	8	
Permitted Phases		6			8
Detector Phase	2	6	6	8	8
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	15.9	15.9	19.5	19.5
Total Split (s)	56.0	56.0	56.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.9		5.9	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	57.9		57.9	10.7	10.7
Actuated g/C Ratio	0.72		0.72	0.13	0.13
v/c Ratio	0.24		0.76	0.36	0.54
Control Delay	0.8		13.1	36.1	10.7
Queue Delay	0.2		0.0	0.0	0.0
Total Delay	1.0		13.1	36.1	10.7
LOS	A		B	D	B
Approach Delay	1.0		13.1	17.9	
Approach LOS	A		B	B	
Queue Length 50th (m)	1.0		60.4	11.5	0.0
Queue Length 95th (m)	4.8		126.1	23.2	17.2
Internal Link Dist (m)	52.9		131.4	77.9	
Turn Bay Length (m)					
Base Capacity (vph)	2385		1094	391	507
Starvation Cap Reductn	1076		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.43		0.76	0.21	0.40

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 9.9
 Intersection LOS: A
 Intersection Capacity Utilization 95.3%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Montgomery & Montreal



Projected 2025 AM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	383	262	83	10	16
Future Vol, veh/h	10	383	262	83	10	16
Conflicting Peds, #/hr	91	0	0	91	1	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	403	276	87	11	17
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	454	0	-	0	837	422
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	426	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1107	-	-	-	337	632
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	659	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1022	-	-	-	283	578
Mov Cap-2 Maneuver	-	-	-	-	283	-
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	608	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.2	0	14.3			
HCM LOS			B			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1022	-	-	-	413	
HCM Lane V/C Ratio	0.01	-	-	-	0.066	
HCM Control Delay (s)	8.6	0	-	-	14.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Projected 2025 AM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	389	345	0	16	4
Future Vol, veh/h	0	389	345	0	16	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	409	363	0	17	4
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	363	0	-	0	772	363
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	409	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1196	-	-	-	368	682
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	671	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1196	-	-	-	368	682
Mov Cap-2 Maneuver	-	-	-	-	368	-
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	671	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		14.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1196	-	-	-	405	
HCM Lane V/C Ratio	-	-	-	-	0.052	
HCM Control Delay (s)	0	-	-	-	14.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Projected 2025 AM
9: North River & Selkirk

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	27	50	239	1	0	409
Future Vol, veh/h	27	50	239	1	0	409
Conflicting Peds, #/hr	3	0	0	90	90	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	53	252	1	0	431
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	562	343	0	0	-	-
Stage 1	343	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	472	699	-	-	0	-
Stage 1	718	-	-	-	0	-
Stage 2	797	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	435	646	-	-	-	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.6	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT		
Capacity (veh/h)	-	-	552	-		
HCM Lane V/C Ratio	-	-	0.147	-		
HCM Control Delay (s)	-	-	12.6	-		
HCM Lane LOS	-	-	B	-		
HCM 95th %tile Q(veh)	-	-	0.5	-		

Projected 2025 AM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	197	12	4	56	132	71
Future Vol, veh/h	197	12	4	56	132	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	13	4	59	139	75
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	244	177	214	0	0	
Stage 1	177	-	-	-	-	
Stage 2	67	-	-	-	-	
Critical Hdwy	6.42	6.22	4.12	-	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	
Follow-up Hdwy	3.518	3.318	2.218	-	-	
Pot Cap-1 Maneuver	744	866	1356	-	-	
Stage 1	854	-	-	-	-	
Stage 2	956	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	742	866	1356	-	-	
Mov Cap-2 Maneuver	742	-	-	-	-	
Stage 1	851	-	-	-	-	
Stage 2	956	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	11.8	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1356	-	748	-	-	
HCM Lane V/C Ratio	0.003	-	0.294	-	-	
HCM Control Delay (s)	7.7	0	11.8	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	1.2	-	-	

Projected 2025 AM
14: North River & Site

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	16	58	258	17	24	388
Future Vol, veh/h	16	58	258	17	24	388
Conflicting Peds, #/hr	2	8	0	46	46	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	61	272	18	25	408
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	583	335	0	0	336	0
Stage 1	327	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	459	706	-	-	1222	-
Stage 1	730	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	428	674	-	-	1174	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.9	0		0.6		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	599	1174	-	
HCM Lane V/C Ratio	-	-	0.13	0.022	-	
HCM Control Delay (s)	-	-	11.9	8.1	0.1	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-	

Projected 2025 PM
1: North River & Montreal



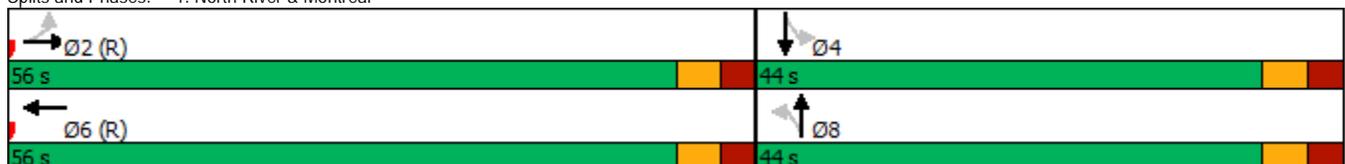
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕↔	↕↔	↔	↔		↕↔
Traffic Volume (vph)	3	633	652	396	17	21	65
Future Volume (vph)	3	633	652	396	17	21	65
Lane Group Flow (vph)	0	1228	690	417	51	0	112
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		2	6		8		4
Permitted Phases	2			8		4	
Detector Phase	2	2	6	8	8	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	27.0	30.2	30.2	30.2	30.2
Total Split (s)	56.0	56.0	56.0	44.0	44.0	44.0	44.0
Total Split (%)	56.0%	56.0%	56.0%	44.0%	44.0%	44.0%	44.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.7	2.7	2.7	2.9	2.9	2.9	2.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.0	6.0	6.2	6.2		6.2
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		52.3	52.3	35.5	35.5		35.5
Actuated g/C Ratio		0.52	0.52	0.36	0.36		0.36
v/c Ratio		0.82	0.39	0.93	0.09		0.19
Control Delay		26.5	16.8	60.2	10.5		19.5
Queue Delay		1.3	1.0	0.0	0.0		0.0
Total Delay		27.8	17.8	60.2	10.5		19.5
LOS		C	B	E	B		B
Approach Delay		27.8	17.8		54.8		19.5
Approach LOS		C	B		D		B
Queue Length 50th (m)		105.2	44.8	73.9	2.2		12.4
Queue Length 95th (m)		137.5	66.2	#129.1	9.5		24.1
Internal Link Dist (m)		105.3	52.9		6.0		56.2
Turn Bay Length (m)				35.0			
Base Capacity (vph)		1495	1770	477	598		620
Starvation Cap Reductn		0	778	0	0		0
Spillback Cap Reductn		112	0	0	18		18
Storage Cap Reductn		0	0	0	0		0
Reduced v/c Ratio		0.89	0.70	0.87	0.09		0.19

Intersection Summary

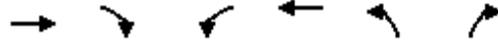
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 29.7
 Intersection Capacity Utilization 80.3%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 1: North River & Montreal



Projected 2025 PM
2: Montgomery & Montreal



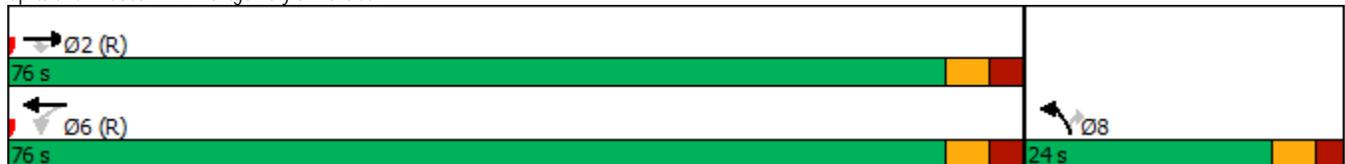
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	↑
Traffic Volume (vph)	566	133	223	566	155	176
Future Volume (vph)	566	133	223	566	155	176
Lane Group Flow (vph)	596	140	0	831	163	185
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	39.9	39.9	15.9	15.9	19.5	19.5
Total Split (s)	76.0	76.0	76.0	76.0	24.0	24.0
Total Split (%)	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.6	2.6	2.6	2.6	2.2	2.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9		5.9	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)	73.7	73.7		73.7	14.9	14.9
Actuated g/C Ratio	0.74	0.74		0.74	0.15	0.15
v/c Ratio	0.45	0.13		0.52	0.64	0.50
Control Delay	8.7	3.0		7.7	51.4	10.4
Queue Delay	5.3	0.7		0.1	0.0	0.0
Total Delay	14.0	3.7		7.8	51.4	10.4
LOS	B	A		A	D	B
Approach Delay	12.1			7.8	29.6	
Approach LOS	B			A	C	
Queue Length 50th (m)	62.7	4.1		30.4	30.2	0.0
Queue Length 95th (m)	m40.4	m2.3		53.8	47.8	17.1
Internal Link Dist (m)	52.9			131.4	77.9	
Turn Bay Length (m)						
Base Capacity (vph)	1320	1087		1593	319	417
Starvation Cap Reductn	648	705		0	0	0
Spillback Cap Reductn	0	0		119	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.89	0.37		0.56	0.51	0.44

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 13.4
 Intersection Capacity Utilization 79.2%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 2: Montgomery & Montreal



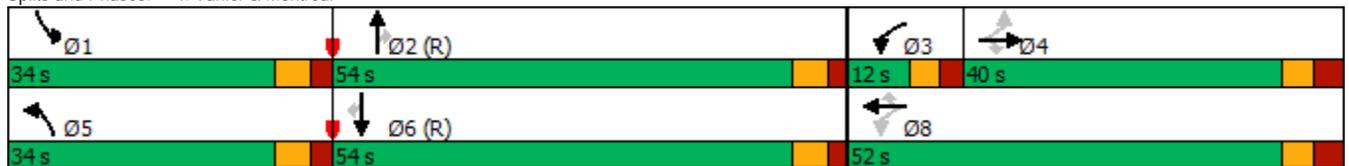
Projected 2025 PM
4: Vanier & Montreal

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	429	202	163	420	198	364	1011	210	142	1026	118
Future Volume (vph)	63	429	202	163	420	198	364	1011	210	142	1026	118
Lane Group Flow (vph)	66	452	213	172	442	208	383	1064	221	149	1080	124
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	4	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	39.6	39.6	39.6	10.7	39.6	39.6	11.1	28.9	28.9	11.1	28.9	28.9
Total Split (s)	40.0	40.0	40.0	12.0	52.0	52.0	34.0	54.0	54.0	34.0	54.0	54.0
Total Split (%)	28.6%	28.6%	28.6%	8.6%	37.1%	37.1%	24.3%	38.6%	38.6%	24.3%	38.6%	38.6%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	2.4	3.3	3.3	2.4	2.2	2.2	2.4	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	5.7	6.6	6.6	6.1	5.9	5.9	6.1	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
Act Effct Green (s)	33.4	33.4	33.4	53.9	53.0	53.0	27.9	50.8	50.8	17.6	40.5	40.5
Actuated g/C Ratio	0.24	0.24	0.24	0.38	0.38	0.38	0.20	0.36	0.36	0.13	0.29	0.29
v/c Ratio	0.33	1.06	0.46	0.78	0.34	0.37	1.14	0.60	0.35	0.70	0.77	0.26
Control Delay	49.6	111.7	13.5	59.1	33.1	22.4	140.2	41.8	10.2	75.5	49.1	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	111.7	13.5	59.1	33.1	22.4	140.2	41.8	10.2	75.5	49.1	7.3
LOS	D	F	B	E	C	C	F	D	B	E	D	A
Approach Delay		77.5			35.8			60.2				48.1
Approach LOS		E			D			E				D
Queue Length 50th (m)	15.2	-137.4	8.3	32.3	45.6	24.8	-126.2	65.7	15.7	40.1	100.5	0.8
Queue Length 95th (m)	30.0	#202.9	31.6	#94.2	65.3	50.3	m#140.1	m56.2	m12.8	60.6	107.9	14.4
Internal Link Dist (m)		90.5			113.1			139.9			106.8	
Turn Bay Length (m)	35.0			40.0		10.0	95.0		80.0	90.0		70.0
Base Capacity (vph)	200	425	468	220	1283	565	337	1768	634	337	1673	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	1.06	0.46	0.78	0.34	0.37	1.14	0.60	0.35	0.44	0.65	0.23

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 56 (40%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 55.0
 Intersection LOS: E
 Intersection Capacity Utilization 98.6%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Vanier & Montreal



Projected 2025 PM
7: McArthur & Dundas

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	482	304	104	26	4
Future Vol, veh/h	7	482	304	104	26	4
Conflicting Peds, #/hr	76	0	0	76	0	9
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	507	320	109	27	4
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	505	0	-	0	972	460
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1060	-	-	-	280	601
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	992	-	-	-	243	558
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	558	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.1	0	20.5			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	992	-	-	-	263	
HCM Lane V/C Ratio	0.007	-	-	-	0.12	
HCM Control Delay (s)	8.7	0	-	-	20.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Projected 2025 PM
8: McArthur & Mayfield

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	504	407	0	16	8
Future Vol, veh/h	0	504	407	0	16	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	531	428	0	17	8
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	428	0	-	0	959	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1131	-	-	-	285	627
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1131	-	-	-	285	627
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	590	-
Approach	EB	WB	SB			
HCM Control Delay, s	0	0	16.2			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1131	-	-	-	348	
HCM Lane V/C Ratio	-	-	-	-	0.073	
HCM Control Delay (s)	0	-	-	-	16.2	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Projected 2025 PM
 9: North River & Selkirk

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T			T
Traffic Vol, veh/h	115	57	437	0	0	462
Future Vol, veh/h	115	57	437	0	0	462
Conflicting Peds, #/hr	2	2	0	66	66	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	60	460	0	0	486
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	705	462	0	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	-	-
Pot Cap-1 Maneuver	386	599	-	0	0	-
Stage 1	635	-	-	0	0	-
Stage 2	774	-	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	385	598	-	-	-	-
Mov Cap-2 Maneuver	385	-	-	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	WBLn1	SBT			
Capacity (veh/h)	-	437	-			
HCM Lane V/C Ratio	-	0.414	-			
HCM Control Delay (s)	-	18.9	-			
HCM Lane LOS	-	C	-			
HCM 95th %tile Q(veh)	-	2	-			

Projected 2025 PM
13: Montgomery & Site

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	
Traffic Vol, veh/h	181	8	12	171	153	246
Future Vol, veh/h	181	8	12	171	153	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	191	8	13	180	161	259
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	497	291	420	0	0	
Stage 1	291	-	-	-	-	
Stage 2	206	-	-	-	-	
Critical Hdwy	6.42	6.22	4.12	-	-	
Critical Hdwy Stg 1	5.42	-	-	-	-	
Critical Hdwy Stg 2	5.42	-	-	-	-	
Follow-up Hdwy	3.518	3.318	2.218	-	-	
Pot Cap-1 Maneuver	532	748	1139	-	-	
Stage 1	759	-	-	-	-	
Stage 2	829	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	525	748	1139	-	-	
Mov Cap-2 Maneuver	525	-	-	-	-	
Stage 1	749	-	-	-	-	
Stage 2	829	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	15.8	0.5		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1139	-	532	-	-	
HCM Lane V/C Ratio	0.011	-	0.374	-	-	
HCM Control Delay (s)	8.2	0	15.8	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	1.7	-	-	

Projected 2025 PM
14: North River & Site

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕↕
Traffic Vol, veh/h	16	54	390	52	74	451
Future Vol, veh/h	16	54	390	52	74	451
Conflicting Peds, #/hr	14	13	0	55	55	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	57	411	55	78	475
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	902	507	0	0	521	0
Stage 1	494	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	292	565	-	-	1043	-
Stage 1	612	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	246	533	-	-	994	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.4	0		1.6		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	421	994	-	
HCM Lane V/C Ratio	-	-	0.175	0.078	-	
HCM Control Delay (s)	-	-	15.4	8.9	0.4	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.6	0.3	-	

APPENDIX H

MMLoS Analysis

Multi-Modal Level of Service - Intersections Form

Consultant	Parsons	Project	477516-01000
Scenario	29 Selkirk TIA	Date	Jun-20
Comments			

INTERSECTIONS		North River/Montreal			
Crossing Side		NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	0 - 2	5	4	4
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RTOR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited
	Ped Signal Leading Interval?	No	No	No	No
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel
	Corner Radius	5-10m	5-10m	5-10m	5-10m
	Crosswalk Type	Textured/coloured pavement	Textured/coloured pavement	Textured/coloured pavement	Textured/coloured pavement
	PETSI Score	97	49	57	60
	Ped. Exposure to Traffic LoS	A	D	D	C
	Cycle Length	100	100	100	100
	Effective Walk Time	34	34	21	21
	Average Pedestrian Delay	22	22	31	31
	Pedestrian Delay LoS	C	C	D	D
Level of Service	C	D	D	D	
		D			
Approach From		NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Right Turn Lane Configuration	Not Applicable	> 50 m	≤ 50 m	≤ 50 m
	Right Turning Speed	Not Applicable	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h
	Cyclist relative to RT motorists	Not Applicable	F	D	D
	Separated or Mixed Traffic	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Left Turn Approach	No lane crossed	One lane crossed	One lane crossed	One lane crossed
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h
	Left Turning Cyclist	B	D	E	E
Level of Service	B	F	E	E	
		F			
Transit	Average Signal Delay		> 40 sec	≤ 20 sec	≤ 30 sec
	Level of Service	-	F	C	D
		F			
Truck	Effective Corner Radius	< 10 m	< 10 m	< 10 m	< 10 m
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	1	≥ 2
Level of Service	D	D	F	D	
		F			
Auto	Volume to Capacity Ratio				
	Level of Service	-			

Montgomery/Montreal				Vanier/Montreal			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	4	4	4	7	8	7	6
	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m			
	Permissive	No left turn / Prohib.	Permissive	Permissive	Protected/ Permissive	Protected	Protected
	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control			
	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	No	No	No	No	No	No	No
	No Channel	No Channel	No Channel	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane
	5-10m	3-5m	5-10m	15-25m	15-25m	15-25m	15-25m
	Std transverse markings	Std transverse markings	Std transverse markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
	54	63	54	6	-7	14	33
-	D	C	D	F	F	F	E
	100	100	100	140	140	140	140
	61	12	12	23	7	33	33
	8	39	39	49	63	41	41
-	A	D	D	E	F	E	E
-	D	D	D	F	F	F	E
D				F			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	≤ 50 m		≤ 50 m	> 50 m	> 50 m	≤ 50 m	≤ 50 m
	≤ 25 km/h		≤ 25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h
-	D	-	D	F	F	E	E
-	Mixed Traffic	-	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	No lane crossed	One lane crossed		≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed
	> 40 to ≤ 50 km/h	> 50 to < 60 km/h		≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h
-	B	E	-	F	F	F	F
-	D	-	-	F	F	F	F
D				F			
		≤ 10 sec	≤ 10 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec
-	-	B	B	F	F	F	F
B				F			
	< 10 m		< 10 m	> 15 m	> 15 m	10 - 15 m	> 15 m
	≥ 2		≥ 2	≥ 2	≥ 2	≥ 2	≥ 2
-	D	-	D	A	A	B	A
D				B			
-				-			

North River/McArthur				Vanier/McArthur			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
0 - 2	0 - 2	3	0 - 2	7	7	6	5
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
Permissive	Permissive	Permissive	Permissive	Protected	Protected	Protected	Protected
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No	No	No	No	No
No Channel	No Channel	No Channel	No Channel	Conventional with Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane	Conventional with Receiving Lane
10-15m	5-10m	10-15m	10-15m	15-25m	15-25m	15-25m	15-25m
Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Textured/coloured pavement	Textured/coloured pavement	Std transverse markings
85	86	70	85	11	14	30	44
B	B	C	B	F	F	E	E
75	75	75	75	140	140	140	140
7	7	25	25	7	7	31	31
31	31	17	17	63	63	42	42
D	D	B	B	F	F	E	E
D	D	C	B	F	F	E	E
D				F			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Mixed Traffic
≤ 50 m	≤ 50 m	Bike lane shifts to the left of right turn	≤ 50 m	> 50 m	> 50 m	Bike lane shifts to the left of right turn	> 50 m
≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	>25 km/h	>25 km/h	>25 to 30 km/h	>25 km/h
D	D	D	D	F	F	F	F
Mixed Traffic	Mixed Traffic	Separated	Mixed Traffic	Mixed Traffic	Mixed Traffic	Separated	Mixed Traffic
No lane crossed	No lane crossed	No lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	One lane crossed
> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 40 to ≤ 50 km/h
B	B	B	B	F	F	F	D
D	D	D	D	F	F	F	F
D				F			
≤ 30 sec	≤ 10 sec		≤ 20 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec
D	B	-	C	F	F	F	F
D				F			
< 10 m	10 - 15 m	10 - 15 m	< 10 m	> 15 m	> 15 m	> 15 m	> 15 m
1	1	1	1	≥ 2	≥ 2	≥ 2	≥ 2
F	E	E	F	A	A	A	A
F				A			
-				-			

North River/Montreal (Future)				Vanier/Montreal (Future)			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
0 - 2	0 - 2	4	4	7	8	7	6
No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
No left turn / Prohib.	No left turn / Prohib.	Permissive	Permissive	Permissive	Protected/ Permissive	Protected	Protected
Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
No	No	No	No	No	No	No	No
No Channel	No Channel	No Channel	No Channel	Conventional with Receiving Lane	Conv'tl without Receiving Lane	Conventional with Receiving Lane	Conv'tl without Receiving Lane
5-10m	5-10m	5-10m	5-10m	15-25m	15-25m	15-25m	15-25m
Textured/coloured pavement	Textured/coloured pavement	Textured/coloured pavement	Textured/coloured pavement	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings
97	97	57	60	6	-7	14	33
A	A	D	C	F	F	F	E
100	100	100	100	140	140	140	140
34	34	21	21	23	7	33	33
22	22	31	31	49	63	41	41
C	C	D	D	E	F	E	E
C	C	D	D	F	F	F	E
D				F			
NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic			
Not Applicable	> 50 m	≤ 50 m	Not Applicable	Not Applicable	Not Applicable	Not Applicable	≤ 50 m
Not Applicable	≤ 25 km/h	≤ 25 km/h	Not Applicable	Not Applicable	Not Applicable	Not Applicable	>25 km/h
Not Applicable	F	D	Not Applicable	Not Applicable	Not Applicable	Not Applicable	E
Separated	Mixed Traffic	Mixed Traffic	Separated	Separated	Separated	Separated	Mixed Traffic
2-stage, LT box	One lane crossed	One lane crossed	2-stage, LT box	2-stage, LT box	2-stage, LT box	2-stage, LT box	2-stage, LT box
> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h	≥ 60 km/h	≥ 60 km/h	> 50 to < 60 km/h	> 50 to < 60 km/h
A	D	E	A	A	A	A	A
A	F	E	A	A	A	A	E
F				E			
	> 40 sec	≤ 20 sec	≤ 30 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec
-	F	C	D	F	F	F	F
F				F			
< 10 m	< 10 m	< 10 m	< 10 m	> 15 m	> 15 m	10 - 15 m	> 15 m
≥ 2	≥ 2	1	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2
D	D	F	D	A	A	B	A
F				B			
-				-			